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# BOSTON REGION

## TRANSPORTATION IMPROVEMENT P R O G R A M

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This document is one of three required by the Federal Highway Administration and the Urban Mass Transportation Administration as a prerequisite to the receipt of federal transportation funds. The documents are the Unified Planning Work Program (UPWP), the Transportation Plan which includes the previous Transportation Systems Management (TSM) Element, and the Transportation Improvement Program (TIP).

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This document was prepared by CENTRAL TRANSPORTATION PLANNING STAFF, an interagency transportation planning staff created and directed by the Metropolitan Planning Organization, consisting of the member agencies.

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Massachusetts Port Authority  
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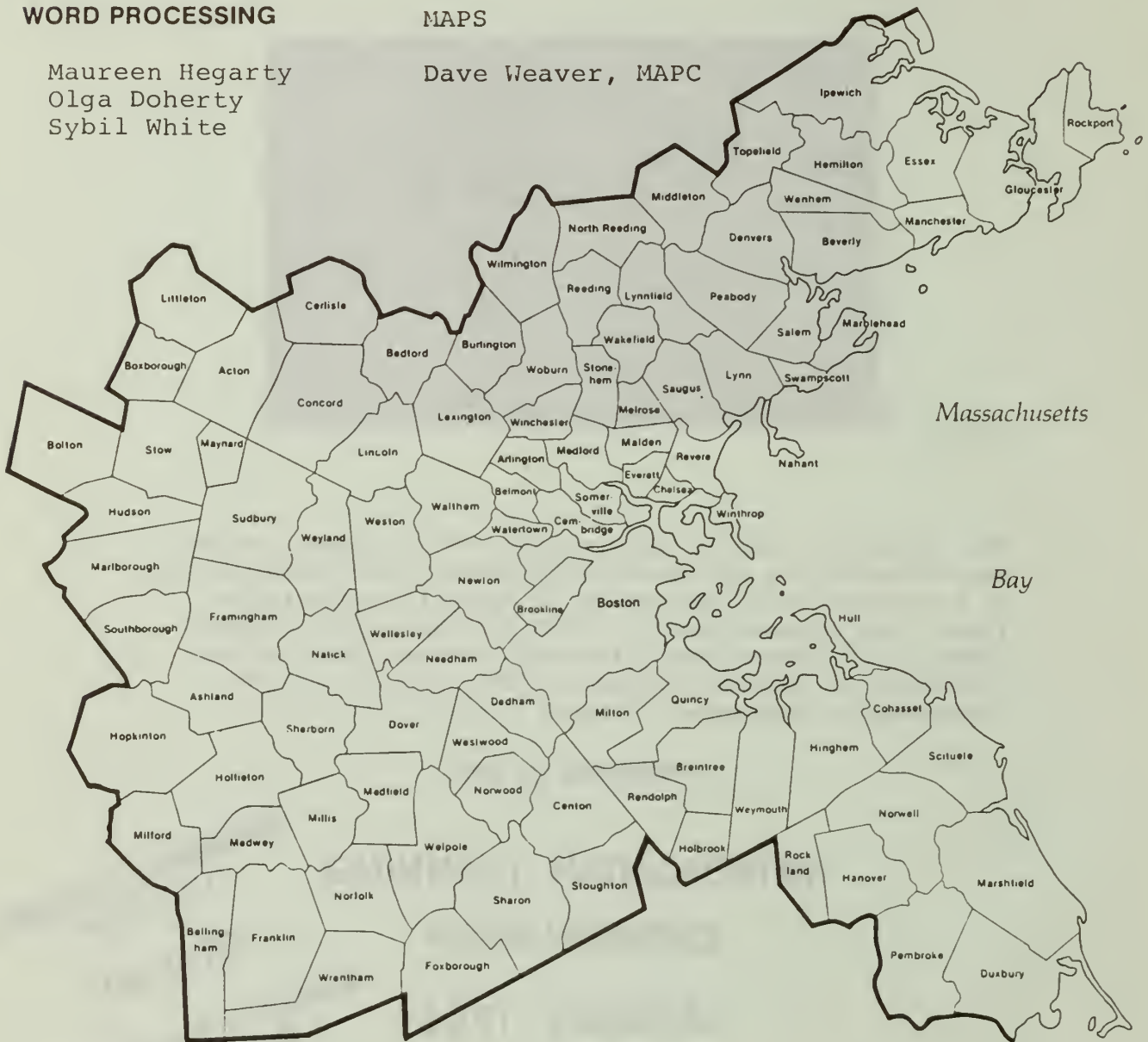


MAPC REGION  
BOUNDARY

STUDY AREA

## MAPS

Dave Weaver, MAPC



MDPW 22946  
MDPW 23892  
UMTA MA-09-0107

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CERTIFICATION OF 3C TRANSPORTATION PLANNING PROCESS

In accordance with the FHWA/UMTA Urban Transportation Planning Final Rule, dated June 30, 1983, the Metropolitan Planning Organization (MPO) for the Boston Region has completed its review and hereby certifies that the conduct of the 3C Transportation Planning Process complies with the requirements of CFR 450.114 (c); and that said process includes activities to support the development and implementation of this Transportation Improvement Program (TIP), the Transportation Plan, and subsequent project development activities, as necessary and to the degree appropriate.

General Relationships of the Major Elements  
Required for Federal Certification Under the  
Urban Transportation Planning Process

Unified Planning Work Program

- description of work performed at the planning or problem definition (more general analysis) stage.

Transportation Plan

- description of the long-range governmental policies that lead to major capital improvements to the region's existing transportation system and a description of the short-range governmental policies that lead to operational improvements to the region's existing transportation system.

Transportation Improvement Program

- description of projects that would be eligible for the implementation stage in the current fiscal year and a description of projects that would be eligible for the implementation stage in the next 2-5 years.

FY 1985 TRANSPORTATION IMPROVEMENT PROGRAM

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## I. INTRODUCTION

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The Transportation Improvement Program (TIP) is a staged, five-year program of improvement projects which are consistent with the Transportation Plan developed for the Boston region's highway and public transportation systems. Projects listed in the TIP are expected to be candidates for federal funding of their implementation at some point over the next five fiscal years. Projects listed in the Annual Element are expected to be ready for implementation funds during federal Fiscal Year 1985 (October 1, 1984 - September 30, 1985). Projects that are not programmed to receive federal funds during the five-year period covered by this TIP are included for information only. In addition, projects scheduled for implementation with local or state funds only are listed in section IV.6 in order to give a complete picture of regional projects and their programming.

The TIP is developed and updated annually under the direction of the Metropolitan Planning Organization (MPO), in cooperation with state and local officials. The TIP has been produced in compliance with the requirements of Part 450, Subpart C of Chapter 23 of the Code of Federal Regulations, effective August 1, 1983. These requirements were established jointly by the Federal Highway Administration (FHWA) and the Urban Mass Transportation Administration (UMTA).

### I.1 COORDINATION WITH REGIONAL TRANSPORTATION PLANNING

Projects in the Fiscal Year 1985 TIP are consistent with the current Transportation Plan for the Boston Region, 1983, and coordinate with the MBTA's Program for Mass Transportation.

#### Relationship to the Transportation Plan

The Transportation Plan is the region's statement of basic transportation policy for both highway and transit projects. The plan is the first step in the process of assessing future need, selecting transportation projects, and stating intentions for future development. Furthermore, the document provides a focal point for the discussion and clarification of the policy which guides the transportation decision-making process.

The plan contains both long- and short-range components. The long-range components address the future transportation needs of the region and identify major changes in the transportation system and the policies which might guide their development. The short-range components of the plan are Transportation Systems

Managements (TSM) projects which promote the efficient use of existing facilities. The goal of TSM is to insure, through the use of management techniques and low cost capital projects, that the region's transportation system is being used to its fullest extent before new facilities are added. Capital elements of TSM projects will be included in the TIP.

In the past, the Boston region prepared the Transportation Plan as two separate documents, one dealing with long-range planning and the other with Transportation Systems Management. The present plan integrates the two strategies as complementary means of achieving regional goals.

#### Relationship to the Program for Mass Transportation

Chapter 161A of the Massachusetts General Laws requires the Executive Office of Transportation and Construction (EOTC) to prepare a Program for Mass Transportation (PMT) for the area included in the Massachusetts Bay Transportation Authority (MBTA) district. The TIP has been prepared to be fully consistent with the Program for Mass Transportation, as approved by the MBTA Advisory Board in December 1978. When the continuing transportation planning and implementation process results in significant changes to the program elements included in the PMT, it will be revised in accordance with state law, so that the document remains consistent. The SubSignatory Committee (SSC) of the MPO proposed in June 1983 that consideration be given to a revision of the PMT in concert with preparation of the next edition of the Transportation Plan.

### I.2 CONSISTENCY WITH OTHER FEDERAL REGULATIONS

#### Section 504

Section 504 of the Rehabilitation Act of 1973 provides that "No otherwise qualified handicapped individual . . . shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

In carrying out the requirements of Section 504, the U. S. Department of Transportation originally ruled that mass transit systems which receive federal capital or operating assistance must become accessible to handicapped persons. However, a federal court decision held that Section 504 did not authorize this requirement.

On July 20, 1981, the Department of Transportation issued an Interim Final Rule, which superseded its previous regulation. The rule, " . . . requires mass transit operators receiving financial assistance from the Department to certify that they are making special efforts to provide transportation that handicapped persons can use."

The Surface Transportation Assistance Act of 1982 directed the Secretary of Transportation to promulgate final regulations establishing both minimum criteria for the provision of transportation services to handicapped and elderly individuals and procedures for monitoring recipients' compliance with them. The DOT published proposed final rules on September 8, 1983 and received comments until December 8, 1983. The DOT has not yet issued final rules.

There is no formal requirement that the TIP demonstrate or certify its consistency with Section 504. However, the production of the TIP is a part of the urban transportation planning process, and Federal regulations require that this process contain special efforts to plan public mass transportation facilities and services that can effectively be utilized by elderly and handicapped persons.

The Transit Element of this document contains descriptions of the 16(b)(2) Program and the Handicapped Accessibility Program. Both of these make public transportation services available to patrons with special needs.

#### Consistency with the Transportation Element of the State Implementation Plan

The 1977 Amendments to the Clean Air Act require state and local governments to prepare plans for achieving compliance with the national air quality standards established by the Clean Air Act. As set forth in the State Implementation Plan (SIP), the MPO, in conjunction with the Department of Environmental Quality Engineering, is required to make an annual determination that the region's transportation plans and projects are consistent with the SIP. The TIP Annual Element Highway projects have been examined to determine which projects significantly affect highway capacity or operating speeds. Those that do have been further analyzed and their air quality impact--whether good or bad--has been estimated. The region is consistent with the TE/SIP as long as the sum of these impacts shows an overall reduction in pollutants emitted.

### I.3 ANNUAL REVIEW AND AMENDMENT PROCESS

The Transportation Improvement Program is prepared several months prior to the beginning of the federal fiscal year. The annual revision of the document consists of a review and update of all projects shown in the TIP for the preceding fiscal year. Any amendments endorsed during the course of a fiscal year are incorporated into the annual revision of the subsequent TIP document.

The Massachusetts Bay Transportation Authority and the Massachusetts Department of Public Works (MDPW) are the two major recipients of Federal transportation funds in the Boston region.



They produce proposed transit and highway elements. In addition, the Executive Office of Transportation and Construction (EOTC) provides information on funding for the Cape Ann Transportation Authority (CATA) which is also included in the transit element. The Metropolitan Area Planning Council (MAPC) might also provide information on city or town projects in which the community is the direct recipient of Federal funds. (This could only apply in the case of locally operated transit programs; the state is the only authorized recipient under the Federal highway funding programs included in the TIP.)

The Joint Regional Transportation Committee (JRTC), cities and towns in the MAPC region, and the General Court and its Joint Legislative Committee on Transportation review and comment on the proposed TIP. The SSC reviews these comments and determines the content of a final draft document.

The final draft upon JRTC recommendation is submitted to the MPO for endorsement. The endorsed TIP is then transmitted to the relevant federal and state agencies--namely FHWA, UMTA, EPA and EOCD. Current federal planning regulations require that the MPO certify that the planning process is being carried on in conformance with all applicable requirements. The MPO submits a statement to this effect when the new TIP is transmitted to FHWA and UMTA. Existence of an adequate transportation planning process is a requirement for receiving federal funds. Previous regulations made certification of the process a federal responsibility. Although the current regulations have transferred this responsibility to local and state officials, they have not relieved FHWA and UMTA of their oversight responsibilities and the necessity of making certain statutory findings.

Federal regulations allow the MPO to modify the TIP at any time as long as the process is consistent with the requirements for developing the TIP. The following describes the current amendment process which the region adopted in 1981. During the following three years, some of those involved have expressed their interest in expediting the review and endorsement of the document and its amendments while still allowing adequate time for public participation. The number and timing of amendments is currently under review.

The MPO has scheduled two amendment periods during the fiscal year--February and June--to incorporate in the TIP changes in project status or funding. Non-scheduled amendments may occur as needed to respond to project schedule changes. Amendments follow a review process similar to that described earlier.

Amendments to the Transit Element generally take the form of refinement of estimated costs when actual costs become known and minor changes in the scheduling of programs or program elements (projects).

An amendment to the Highway Element is required when:

- o A project is dropped.
- o A project is moved either into or out of the Annual Element.
- o A new project is added to the TIP. This often occurs when a project already under development is changed from state or local funding to federal aid.
- o A later stage of project activity is programmed; e.g., right-of-way acquisition or construction is programmed for a project previously authorized for preliminary engineering only.

The MPO has determined that the responsible agency may make the following certain administrative, project programming changes without a TIP amendment.

- o The federal funding category of a project may be changed administratively, with the following exceptions:
  1. Either to or from Interstate Program funding.
  2. To Urban Systems funding. In this case, the affected municipality must concur, but a TIP amendment is not required.
- o If a project activity has been programmed in the Annual Element any earlier stage of project activity may be programmed or altered administratively.

When any of the above administrative changes are made, the responsible agency shall notify the MPO.

#### I.4 FUNDING SOURCES, TRANSIT ELEMENT

##### Section 3 Funds

Section 3 of the Urban Mass Transportation Act creates a discretionary funding program available for a variety of purposes commonly referred to as capital investment in public transportation equipment and facilities.

Section 3 authorizes the U. S. Secretary of Transportation to make grants or loans to assist states and local public bodies and agencies in:

- o the construction of new fixed guideway systems and extensions to existing fixed guideway systems,

- o the acquisition, construction, reconstruction, and improvement of facilities and equipment for use in mass transportation and its coordination with highway and other transportation.
- o the introduction into public transportation service of new technology in the form of innovative and improved products:
- o transportation projects which are physically or functionally related to, and enhance the effectiveness of, any mass transportation project or which create or enhance coordination between public transportation and other forms of transportation, and which also enhance urban economic development or incorporate private investment.
- o the modification of equipment and fixed facilities (other than stations) affected by the Northeast Corridor rail project.

Since FY 1984, the Section 3 capital grant program has been funded by the Mass Transit Account of the Highway Trust Fund rather than from general revenues and annual appropriations. Provisions of the Surface Transportation Assistance Act of 1982 (STAA) created this source of revenue which is generated by the dedication of one penny per gallon from the Federal motor fuel tax to the fund. The STAA authorized Section 3 funding levels of \$1.25 billion for FY 1984, and \$1.1 billion for FY's 1985 and 1986. Section 3 provides for federal payment of up to 80 percent of the cost of approved capital improvement transit projects.

Section 3 grants are awarded on the basis of need, as determined by the UMTA Administrator, rather than through a fixed formula. This is a totally discretionary program, and it is UMTA's intention to confine its use to major investments in the transit infrastructure of urbanized areas; that is, to a range of extraordinary, rather than routine, needs. These would include rehabilitation and modernization of commuter rail and fixed guideway systems, new systems, and certain types of bus purchases and facilities for substantial upgrading or system expansion in lieu of a new fixed guideway system; and possibly maintenance garages. Section 3 would not be used for rehabilitation of buses, capital maintenance items (i.e., parts, components), or, in general, for the lower order of capital investments. UMTA expects grantees to use formula apportioned resources available under the Section 9 program (see below) for any or all eligible purposes before considering application under Section 3 for such purposes.



## Interstate Transfer Funds

Another major funding source is the Interstate Transfer provision of the 1973 Highway Act. In accordance with the provisions of this act, Massachusetts withdrew several Interstate highway segments proposed for construction in Boston, Cambridge, and Somerville and made the \$600 million that would have been spent for these highways available for transit construction. Later amendments to the Highway Act, sponsored in part by the Massachusetts delegation to Congress, increased this amount to account for inflation. The actual amount of transfer funds is increased periodically to account for increases in construction costs. From this program, all funds have been committed, as of October 1, 1981, to the Red Line Extension and Orange Line Relocation projects. These funds are expected to be drawn from the Interstate Transfer account and expended over the next several years.

## Section 9 Funds

The STAA of 1982 added Section 9 to the Urban Mass Transportation Act. Section 9 provides for a block grant program that has superseded the Section 5 formula grant program. Beginning in FY 1984, the Section 9 program became the principal source of funds for routine transit capital projects, including bus purchases. Funds for this program are appropriated from the general fund of the U. S. Treasury. The Section 9 and the Section 18 (see below) formula grant program for small urban and rural areas are funded out of annual appropriations that the STAA set at \$2.75 billion in FY 1984; \$2.95 billion in FY 1985, and \$3.05 billion in FY 1986.

Section 9 block grant funds are apportioned under formulas that take into account fixed guideway and bus revenue vehicle miles, route miles, and passenger miles, as well as population and population density. The annual apportionments are computed by UMTA after funds are appropriated by the Congress.

Money apportioned under Section 9 remains available for obligation by the region for a period of three years following the close of the fiscal year for which the funds are apportioned. Any amounts remaining unobligated at the end of this period revert to UMTA and are added to the amount available for apportionment under this section for the succeeding fiscal year.

Eligible projects include: planning, acquisition, construction, and improvement of facilities, equipment, and capital maintenance items. Capital maintenance items include any equipment and materials each of which costs at least one percent of the current cost of a comparable, new, replacement vehicle. For all these eligible projects, the federal share of net project cost is 80 percent.

UMTA expects that most routine bus capital activities will be handled by the Section 9 formula program. This includes replacement of old buses, routine expansion of bus service, normal bus facility modernization and/or construction, bus rehabilitation and purchase of related support equipment, such as computer hardware and software, radios, passenger shelters, bus stops signs, and significant spare parts, such as engines, transmissions, and air conditioning units.

Rail modernization can also be accomplished under the local formula allocation of Section 9. However, these needs are known to be substantial and UMTA anticipates that the Section 3 discretionary program will supplement these activities in areas with existing rail systems.

Some new fixed guideway construction could conceivably be accomplished under the Section 9 program, but it is unlikely that the annual apportionment would be sufficient to maintain a feasible construction schedule for a major capital investment. UMTA has warned that, should a community commence such activity with Section 9 funds, it should not presume that supplemental Section 3 funds would be forthcoming. Neither should an area anticipate that Section 3 funds would be available for routine bus projects normally financed by Section 9 but preempted by a new start project.

Although it will be a principal source of transit capital funds, Section 9 is also available for limited operating subsidies, for which the federal share of net project cost is only 50 percent. Section 9 funds used for operating assistance may not exceed the specified percentages of the Fiscal Year 1982 operating assistance apportionments under Section 5 as follows:

- o Eighty (80) percent in an urbanized area of one million or more population.
- o Ninety (90) percent in an urbanized area of 200,000 or more-but less than one million--population.
- o Ninety-five (95) percent in an urbanized area of less than 200,000 population.

Finally, while funds are made available for planning purposes under Section 8 of the UMTA act, which supports most comprehensive planning activities, Section 9 funds can be used to carry out transit operations and maintenance planning or to supplement Section 8 funds programmed for such purposes. Also, where a comprehensive study of special interest (e.g., alternatives analyses), or of particularly high cost, demands that extra resources be considered if the planning project is to be undertaken and kept on a reasonable schedule, Section 9 funds should be used.



## Section 16(b)(2) Funds

Section 16(b)(2) of the Urban Mass Transportation Act of 1964, as amended, authorizes UMTA to make capital grants to private, non-profit organizations to provide transportation services for elderly and handicapped persons, when existing mass transportation services are unavailable, insufficient, or inappropriate. These resources are distributed between states on a formula basis.

## Section 18 Funds

Section 18 is a formula grant program which provides assistance to public transportation projects in non-urbanized areas. EOTC is responsible for producing and administering a statewide program of projects which fairly and equitably distributes the funds within the state and provides the maximum feasible coordination with other federally-assisted transportation services. Section 18 funds can be used for 80 percent of the cost of a capital project or for 50 percent of the net operating expense of a project or service.

### I.5 MBTA'S CAPITAL BUDGET PROCESS

The MBTA's capital budget process includes four steps:

- o The MBTA's Capital Budget Committee prepares a list of projects to be considered for inclusion in the Annual Element of the TIP. The list includes projects in progress, projects requested by MBTA department heads, and projects drawn from multi-year element of the Transportation Improvement Program.
- o The Capital Budget Committee screens projects and project components using 14 policy criteria to establish a preliminary priority list.
- o A second screening is undertaken, which involves a review of work scope, estimated cost, and project schedule. Scopes and estimates are adjusted, and projects and project components are deferred as appropriate, and a revised priority list is developed. In accordance with Chapter 161A of the Massachusetts General Laws, the MBTA submits the resultant capital budget priorities to the Executive Office of Transportation and Construction for approval.
- o The list of projects included in the Annual Element is further refined and narrowed, as the end of the federal fiscal year approaches. This refinement results from changes in the status of federal sign offs (such as Department of Labor approval), available federal funding, and changes in the status of projects and project components.

Following is a more detailed description of the process, which leads to the development and refinement of the MBTA's portion of the Annual Element.

Within the Authority, the principal responsibility for programming capital improvements and expenditures rests with the Capital Budget Committee, which is an interdepartmental committee consisting of the General Manager and Chief Executive Officer, and the directors of Construction, Operations, Railroad Operations, Materials, Budget, and Treasurer-Controller departments. Staff assistance is provided by the Capital Program Section of the Construction Directorate.

One major task of the Capital Budget Committee is programming funds, the continually recurring process of balancing the annual need for capital funds (the demand) with the annual availability of federal capital funds and local bond funds (the supply). In the last several years, the Authority has relied heavily on phasing or staging projects into annual funding increments. The phasing process involves breaking up a program, or project, into annual funding requests. A project is treated as a bundle of construction and engineering contracts, procurements, force accounts and other internal costs, and projections are made as to the date when funds for the contracts, procurements, etc., will be obligated.

A "sequence of obligations" is, thereby, established for each program or project and is divided into federal fiscal year funding increments, based on when the various cost items will actually be committed. The Authority then submits amendatory capital grant applications to UMTA to obtain capital grant funds for projects for which initial funding has been approved in earlier fiscal years, generally for one fiscal year. As each subsequent amendatory capital grant application is submitted, the costs of that project can be estimated more precisely to reflect more detailed engineering, the effects of inflation, and a more accurate projection of contract or procurement award dates.

## 1.6 TRANSIT PRIORITIES

The MBTA's priority projects are reflected in the Annual Element. Because of uncertainty as to the availability of funding and the rate of advancement of some projects, the cost of the Annual Element at the beginning of the fiscal year (October 1) exceeds available funding. As the year progresses, the MBTA's Capital Budget process narrows the gap between cost and funding until they become consistent at the end of the federal fiscal year.

The Section 3 program is one illustration of this. For FY 1985, the MBTA expects discretionary funding of between \$65 and \$70 million under the Section 3 program, based on a preliminary comparison of need among major transit cities. However, the capital

budget contained in the TIP reflects a need for approximately \$250 million in Section 3 grants in FY 1985. There are several reasons for such overprogramming: first, it is likely that the schedule for some transit projects will slip, so that not all projects programmed for a particular year may be ready for funding; second, there are often opportunities at the end of a fiscal year to have additional projects funded since UMTA may be able to redistribute funds originally intended for projects in other cities which have suffered unforeseen delays; third, it is possible that Congress or UMTA will program more Section 3 funds for our region than are presently anticipated.

## 1.7 FUNDING SOURCES, HIGHWAY ELEMENT

### Interstate

Projects funded in this category involve new construction on the Interstate System of principal arterial routes in urban and rural areas relevant to long distance and interstate travel. The federal share of the costs is 90 percent, and the state share is 10 percent.

### Interstate Resurfacing, Restoration, Rehabilitation and Reconstruction ("4R")

This category funds projects in urban and rural areas for the repair of existing Interstate Systems roadways and bridges. The federal share of costs is 90 percent, and the state share is 10 percent.

### Consolidated Primary

This category funds projects in urban and rural areas for new construction or reconstruction of connected main roads on the Federal Aid Primary System that are relevant to statewide, regional and interstate travel. The federal share of costs is 75 percent, and the state share is 25 percent.

### Urban Systems, Earmarked

This category funds projects within the Federal Aid Urban Area Boundary, which consists of the U. S. designated Boston urbanized area and adjacent areas agreed to by MDPW and local communities. FHWA allocates funds to the entire area including Boston, according to formula. In addition, MDPW itself creates another earmarked funding category, City of Boston projects only, and assigns 24 percent of the Urbanized Area funds to it. Eligible facilities include high traffic volume arterial and collector streets. Funds may also be used for non-highway transportation improvements such as bus loading areas and facilities as well as preferential bus lanes. The federal share of costs is 75 percent. The community is most often asked to pay the entire cost



of preliminary engineering with its own funds. This demonstrates the community's commitment, insures that the design of the improvement reflects local wishes, and preserves federal funds for right-of-way and construction costs.

#### Urban Systems, Statewide

This category can also fund projects within the Federal Aid Urban Area Boundary. Unlike the Earmarked program, the Boston Urban Area competes with the other urban areas within the State for these funds. The eligible facilities and the funding split are the same as for Urban Systems, Earmarked projects, or 75 percent federal, 25 percent state, and the community most often pays for preliminary engineering.

#### Rural Secondary

This category funds projects in rural areas on the major collector routes that provide access to and from Primary roads or centers of population. The federal share of costs is 75 percent, and the state share is 25 percent.

#### Highway Bridge Replacement/Rehabilitation

This category funds projects in urban or rural areas for the replacement or repair of bridges, based upon structural adequacy and safety, servicability and functions, public use and age. Federal share of costs is 80 percent, and state share is 20 percent.

The federal government divides this funding category into either Off-Systems or On-Systems, depending upon the roadway's eligibility for Federal Aid. A further subdivision of the category is for optional funds, which can be applied to either Off- or On-Systems bridges at the discretion of the MDPW.

#### Rail-Highway Crossings

This category funds projects in urban and rural areas at locations on the Federal Aid System that have high accident histories or the potential for hazard. Such projects could include signalization, signing, or the removal of roadside obstacles. Federal share is 90 percent of costs, and state share is 10 percent.

#### Safer Off-System

This category funds projects in urban and rural areas for the upgrading or reconstruction of toll-free roads or bridges not on the Federal Aid System. The federal share of costs is 75 percent, and the state share is 25 percent. These funds are currently frozen.

## I.8 CLASSIFICATION OF HIGHWAY PROJECTS

A highway project is programmed for construction in the Annual Element based on:

- o Percent of design work complete by the beginning of the fiscal year.
- o Estimated date that the project will be advertised for construction bids.
- o An assessment of money available and need for the proposed improvement.

A project must have received Federal Highway Administration approval of its 75-percent design plans and have an estimated advertising date within the current federal fiscal year before it may be considered for inclusion in the Annual Element. Projects which do not meet these two requirements are automatically placed in the 2-5 Year Element. Projects which do meet these requirements may also be placed in the 2-5 Year Element as a result of federal funding limitations, or other problems which are currently delaying the implementation of the project.

This method of classification attempts to present a more realistic picture of construction activity and the expenditure of federal construction funds likely to occur in the current fiscal year. Projects at less than 75-percent design generally are not able to advance to construction within a calendar year. However, if a project does achieve 75-percent design during the course of the fiscal year, it may be forwarded to the Annual Element at the next amendment period, provided that sufficient funding is available.

There are two exceptions to the above classification guideline. One is a project which can advance quickly through design and approval and be ready for advertising during the fiscal year. Examples are traffic signal upgrade projects or resurfacing projects--even major ones. The other exception is a high-priority project whose implementation is desired during the current fiscal year. Assignment to the Annual Element, in this case, assumes a commitment of sufficient resources to complete preliminary engineering and anticipates all necessary federal and local approvals.

## I.9 USING THE TIP - GENERAL INFORMATION

The TIP states the projects for which the region expects to request federal funding. As a federal certification document, the TIP is required to contain only certain projects which will require federal money for implementation. Highway projects funded under state programs appear in this document for information only (see IV.6). Their presence is not required by

Federal regulations, and no MPO endorsement of these projects is implied. The presence of a particular project in the Annual Element indicates the project's priority, but only in the sense that out of all the projects in the pipeline, it is among those likely to be ready for implementation in the current fiscal year.

The project costs listed are estimates and should not be considered final for several reasons. The federal funding agency may not agree to fund the entire project as it was conceived at the local level. This usually becomes known during the various reviews which occur during project development. Either UMTA or FHWA could determine that a certain project contains elements which rightly fall outside of the intent of the funding program and may deny requests to pay for them, thereby requiring the Commonwealth or the local community to find an alternative source of money or to eliminate such elements entirely.

Actual project costs often exceed the estimate given in the TIP. The true dimensions of a transportation problem and its solution may be larger and, therefore, more costly than originally estimated. Additionally, the use of federal funds requires conformance with certain environmental, design, and procurement standards, which can result in a more costly project than originally conceived. The above reasons for increased project costs become apparent during project development and finally, in the marketplace. The cost of transportation equipment and construction is subject to the same inflation as the rest of the economy. Actual costs ran ahead of estimates during the late 1970's; more recent bids, however, have come in under the estimates, as inflation has moderated.

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This document was prepared by the Central Transportation Planning Staff from data provided by the MBTA, the MDPW, and others. It contains the most current information available when the document was produced. Because the status of projects is always changing, amendments to the document during the year provide updates to the information contained herein. Questions concerning the current status of projects or requests for information not contained in the TIP should be directed first to CTPS.

Please contact:

For General Information

Demitrios Athens  
Central Transportation Planning Staff  
10 Park Plaza, Room 2150  
Boston, Massachusetts 02116-3968  
Telephone: 973-7108

For Transit Projects

Rocco A. Mancini, Project Manager  
TSM Projects  
Massachusetts Bay Transportation Authority  
131 Clarendon Street  
Boston, Massachusetts 02116  
Telephone: 722-5024

For Highway Projects

Thomas Richardson, CEPO Administrator  
Capital Expenditures & Program Office  
Massachusetts Department of Public Works  
10 Park Plaza, Room 7331  
Boston, Massachusetts 02116  
Telephone: 973-7854





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## II. TRANSIT ELEMENT

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The transit element of the TIP lists projects under categories that describe the major components of the MBTA's capital program, i.e., efficiency, renovation, replacement and expansion. Non-MBTA capital projects, if any, are included in the most appropriate category.

Each project entry presents the total future cost and the anticipated capital funding schedule for fiscal year 1985, the Annual Element of the TIP, for fiscal years 1986-1989, the 2-5 year Element, and for fiscal years after 1989, which are included because the life span of transit projects often exceeds the five-year period covered by this document. The total amount of grants approved for fiscal year 1984 funds is included for information. All costs are stated in millions.

The above projects are funded through the major capital programs, Section 3, Section 9, and Interstate Transfer. The transit element also lists other projects and programs:

- o Section 9 and Section 18 operating assistance which are non-capital
- o Section 16(b)(2), which is a special purpose capital program.
- o Handicapped Accessibility, which concisely describes actions which are occurring in a number of areas.

A project cost summary concludes the transit element.

II.1 EFFICIENCY PROJECTS

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
1 Signal Improvements/ Communications	1.2	28.2	34.0	0.0	62.2

Project Description:

This project consists of the renewal or replacement of deteriorated, or substandard, signal equipment on the Red, Blue, Green, and Orange Lines; the installation of communication cable on the Blue and Green Lines; the installation of an emergency telephone system on the Red, Blue, Green and Orange Lines; the completion of an MBTA/Police radio system in the Authority's transit tunnels; and the installation of a computer-aided bus radio system.

Probable Funding: Section 3

FY'85 Activities:

Replacement of deteriorated or substandard signal equipment on the Blue Line.

2 Plant Improvements - Phase IV	0.0	6.7	0.0	0.0	6.7
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Project Description:

The Authority filed a multi-year capital grant application in July 1979 with UMTA for its Plant Improvements - Phase IV program, which consists of some 300 small construction or procurement projects for plants and facilities across the entire MBTA system. These projects include replacement of tools and equipment which serve shop facilities, improvements or additions to shop buildings, construction of materials storage facilities, miscellaneous energy conservation improvements, replacement of worn-out non-revenue vehicles, small upgrade efforts for revenue rolling stock, coin counting and handling equipment, minor station or structural improvements, and the like.

Probable Funding: Section 3

FY'85 Activities:

During FY '85, the Authority will undertake additional improvements at Quincy, Albany, and Lynn garages.

FY 85 TIP Transit Element  
Efficiency Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
3 Systemwide Plant Improvements	15.5	16.0	50.0	0.0	66.0

Project Description:

Continuation of the Authority's Plant Improvements Program, which addresses numerous small-scale construction and procurement elements. The major components of the Systemwide Plant Improvements effort are MIS Programs software and equipment, procurement of shop tools and equipment, purchase of non-revenue vehicles, a new computerized telephone system, update security, fire and police communication systems, minor construction improvements at various Authority facilities, and furniture for various Authority directorates.

Probable Funding: Section 9

FY'85 Activities:

FY'85 will continue the project with funding identified for MIS Communications, Operations, Police, Commuter Rail and Construction.

FY 85 TIP Transit Element  
Efficiency Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
4 Park-Ride Improvement Program	2.2	4.5	10.0	1.0	15.5

Project Description:

The MBTA has initiated a program of systematically increasing the supply of parking spaces at its rapid transit and commuter rail stations. This program is designed to increase ridership, reduce automobile travel and, hence, gasoline consumption. Previously granted funds have been used for land takings and appraisals, and for engineering consultant services. Planning and engineering design has been initiated in twelve locations. Of these, final construction plans have been advanced for parking improvements at four high priority sites: Route 128 Railroad Station (Dedham), North Quincy Red Line Station, Canton Center, and Canton Junction. It is anticipated that construction will be underway in 1984 at Route 128 and North Quincy.

Probable Funding: Section 3

FY'85 Activities:

FY'85 activities will consist of further engineering and design tasks, along with land takings as required. It is anticipated that several other locations will be readied for construction, and that engineering plans will be underway for about 18 locations in all during this time frame.

FY 85 TIP Transit Element  
Efficiency Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
5 Transit Efficiency Program	0.0	0.0	10.0	0.0	10.0

Project Description:

This project represents the second phase of an ongoing program aimed at improving the operating efficiency of the transit system through: 1) improved passenger amenities and information aids to facilitate use of the transportation system; 2) traffic engineering improvements to reduce travel time for passengers using buses and streetcars; 3) improved information for management; and 4) improved fare collection systems.

Probable Funding: Section 9

FY'85 Activities:

None

6 Child Care Center - State Transportation Building	0.0	0.2	0.0	0.0	0.2
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Project Description:

This project consists of the construction of a day care center at the State Transportation Building. In accordance with the Equal Opportunity Plan, and in conjunction with the other transportation agencies located in the new State Transportation Building, the MBTA has submitted a grant application for capital assistance for improvements to space in the Transportation Building (2,500 square feet) set aside for a day care center as well as for improvements to the 4,000 square foot rooftop play area.

Probable Funding: Section 3

FY'85 Activities:

Construction of the Day Care Center and rooftop play area will commence.



II.2 RENOVATION PROJECTS

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
7 Track Improvements	17.0	30.0	30.0	0.0	60.0

Project Description:

The Track Improvements Project consists of a multi-year track rehabilitation program in which all deteriorated and substandard track on the Green Line and the three rapid transit lines will be renewed or replaced. The work includes the removal of old ties, rails and ballast followed by upgrading and the installation of new ballast, ties, rail, spikes and fastening plates. Also included in this project is the purchase of work trains, tools and equipment needed to implement this program and improve track maintenance productivity.

Track work in FY'84 was undertaken on the Green Line from North Station to Boylston, including the Copley, Kenmore and Beacon Junctions.

Probable Funding: Section 3

FY'85 Activities:

Track work will be undertaken on the Red Line from Harvard Square to Charles Street.

Track work for the Red Line may be undertaken with either FY'84 or FY'85 monies.

FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
8 Power Improvements	6.0	18.7	21.3	0.0	40.0

Project Description:

The Power Improvements Project is the conversion of the Authority's obsolete 25Hz power system to a 60Hz system connected to a central source of power.

Significant progress has been made with funds received to date and future grants will be used primarily for the construction of a 115kv transformation facility, additional duct and cable systems, "resection-alizing" (reorganizing the cable networks between the substations and track) on the Blue Line, demolition of fifteen obsolete substations.

FY'83 funds allowed the Authority to provide funding for the remaining ducts and cables, purchase and install transformers and oil circuit breakers, and additional funding for the North Station Substation. Amendment No. 10 for FY'84 funds allowed the Authority to make modifications to the South Station substation, including the removal and replacement of two transformers; to demolish approximately 9 substation buildings, to provide additional funding for circuit breakers and related equipment for the 115kv transformer facility. The grant represents \$4,500,000 as the federal share and the local share, \$1,500,000 for a total of \$6,000,000 for this amendment.

Probable Funding: Section 3

FY'85 Activities:

Supply 2-115kv lines from BECO to transformation facility, construction of 115kv transformation facility and related equipment, update existing power distribution network to accommodate the latest design criteria of the Authority (Red Line and Orange Line), Phase II Engineering required to update existing power distribution network to accommodate future power needs, and associated services to perform the work.

FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
9 Power Cable Replacement	0.0	2.2	20.3	0.0	22.5

Project Description:

Replacement of AC and DC power cable that is a potential source of tunnel fires and service outages. The program includes the replacement of deteriorated cable ducts, and the installation of negative return DC cable.

Probable Funding: Section 3

FY'85 Activities:

To allow the Authority to continue the orderly replacement of poor and problem cables within the DC distribution network.

10 Systemwide Electrification Improvement Program	0.0	16.2	60.8	87.0	164.0
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Project Description:

This program is designed to replace and improve the Authority's power distribution system. Included in this effort are improvements and upgrading the Blue and Green Lines catenary system. The element of work involving the overhard catenary will consist of replacement and repair of the existing network and installation of a constant tensioning system. On the Red Line, new third rail will be installed from Harvard to Andrew, along with third rail gap jumpers which are designed to provide electrical continuity and reliability in the event of a power loss of one or more feeder cables. Also included in this program is systemwide duct bank replacement; upgrading of the return power system, electrolysis control program, construction on new 60 HZ substations; replacement of PCB transformers; updating of DC circuit breakers and other power-related improvements.

Probable Funding: Section 3

FY'85 Activities:

Design and construction of Dewey Square substation, replacement of PCB transformers, installation of new third rail and jumpers on Red Line and preliminary design services of overhead catenary systems with constant tensioning.



FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
11 Tunnel Rehabilitation	4.5	34.0	39.0	15.0	88.0

Project Description:

The Tunnel Rehabilitation element is a program for the systematic renovation of the rapid transit tunnels, some sections of which are 60-80 years old. The ventilation program involves the construction of new ventilation shafts and the rehabilitation of existing ventilation fans in other locations. The principal purpose of the tunnel ventilation system is to exhaust smoke from tunnels in the event of a fire in a tunnel so that passengers and employees are protected from smoke inhalation and can be safely evacuated.

Probable Funding: Section 3

FY'85 Activities:

Repairs will be undertaken in the Green and Red Line; repairs on South Station ventilation shaft; and ventilation shafts on the Green and Blue Lines.

12 Station Modernization/ Platform Lengthening	32.0	45.0	20.0	0.0	65.0
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Project Description:

The Station Modernization/Platform Lengthening Program is a continuation of the expansion rehabilitation or modernization of the existing transit system, and construction of platform extension to accommodate six-car trains on the Red Line.

Probable Funding: Section 3

FY'85 Activities:

Station Modernization and platform lengthening at South Station, Broadway and Andrew Stations.

FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
13 JFK/UMASS Station	2.6	15.0	3.0	0.0	18.0

Project Description:

In support of a redevelopment program at Columbia Point, encompassing the new Kennedy Library and the University of Massachusetts, it is proposed to enlarge JFK/UMASS Station. This program involves the construction of an island-type platform near the existing JFK/UMASS Station on the Dorchester Branch of the Red Line. The new platform would serve riders using the South Shore extension by providing those commuters with a direct access to JFK/UMASS Station and the Columbia Point area. The new station platform will be connected by stairways to the existing JFK/UMASS Station lobby at Columbia Road and at the south end of the station. Also included in the project are: a 300-car park-ride facility, a joint use bus transfer facility with the University of Massachusetts, and handicapped accessibility features.

Probable Funding: Section 3

FY'85 Activities:

The final design phase will take place in FY'85.

14 Kendall Station	16.5	0.0	1.0	0.0	1.0
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Project Description:

The Kendall Square Modernization Project was designed to provide transit service improvements in support of a major urban development project in Cambridge. The Urban Initiatives element of the overall redevelopment project will include station modernization and platform lengthening at Kendall Station, construction of a new traction power substation, improved pedestrian distribution to destinations in the Kendall Square area and elderly-handicapped accessibility features.

Probable Funding: Section 3

FY'85 Activities:

Construction will continue.

FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
15 Commuter Rail Improvement Program (Phase III)	0.0	3.5	0.0	0.0	3.5

Project Description:

The Commuter Rail Improvement Program - Phase III (CRIP III) is the third phase of the Authority's on-going program to upgrade the complete Commuter Rail System. The CRIP I Program was approved by UMTA on July 1, 1975, for a total project cost of \$13,634,000. CRIP III continues the work initiated on the former Boston and Maine lines that run into North Station. in order to realize savings in the Operating budget and to provide a more reliable service, a capital investment in track rehabilitation is required.

Probable Funding: Section 3

FY'85 Activities:

Repair and rehabilitation will commence on the following five bridges: Mill Creek, Ipswich River, Lynn Wall, Saugus and Pines River.

FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
16 Commuter Rail Improvement Program (Phase IV)	4.9	21.6	25.0	0.0	46.6

Project Description:

This is an ongoing program to restore commuter rail to its role of importance in the Boston Metropolitan Area through an extensive program of reconstruction and modernization of tracks, structure and equipment. Long-range CRIP planning is organized around three plans of capital investment: A) survival and emergency reconstruction projects, B) systematic investment to restore commuter rail properties and rolling stock to sound condition, and C) capital upgrading for increasing system capacity and level of service. The scope of CRIP IV continues the transition towards Plan B capital efforts begun under CRIP III. The CRIP IV program consists of the following efforts: 1) final design and construction of the south side maintenance facility for locomotives and coaches, 2) final design and construction of a new bridge carrying the Eastern Route over the Mystic River (north side).

Probable Funding: Section 3

FY'85 Activities:

FY'85 funding will be used to construct a south side commuter rail maintenance facility.

17 Commuter Rail Improvement Program (Phase V)	0.0	0.0	40.0	0.0	40.0
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Project Description:

The continuation of the Commuter Rail Improvement Program which includes track rehabilitation, signal rehabilitation and replacement, right-of-way fencing, equipment rehabilitation and procurement, bridge rehabilitation and replacement, station improvements, electric layover facility construction, improvements to maintenance, and parking improvements.

Probable Funding: Section 3

FY'85 Activities:

None.



FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
18 Silverbird Rebuild Program	11.2	13.8	5.0	0.0	18.8

Project Description:

This project involves the rehabilitation and modernization of the Authority's 76-car Silverbird fleet, which operates on the Red Line. These cars have been in service for approximately 13 years, and various conditions have progressed to a point which exceeds the Authority's ability to correct within the Operating budget.

The scope of work will include, but not be limited to, improvements to floors, couplers, compressors, brakes, wiring, doors, tracks, control cases and appropriate spare parts.

Probable Funding: State bond funds, Ch.637, Acts of 1983

FY'85 Activities:

Rehabilitation will commence.

19 Purchase of New Commuter Coaches	18.0	43.0	5.0	0.0	48.0
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Project Description:

The project involves the purchase of five (5) new locomotives and 60 new coaches.

Probable Funding: Section 3

FY'85 Activities:

Awards will be made pending UMTA funding.



FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
20 LRV Improvement	0.0	0.0	50.0	0.0	50.0

Project Description:

The program is being financed with funds remaining from UMTA's original grant for the purchase of the LRVs; the cash settlement reached with the contractor is invested at the present time, and the proceeds are being used to purchase an additional 50 LRVs.

Probable Funding: Investment Account

FY'85 Activities:

None.

21 North Shore Transit Improvements	0.0	3.0	42.0	0.0	45.0
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Project Description:

The North Shore Transit Improvements project will upgrade commuter rail and Blue Line facilities located in the North Shore transportation corridor. This project is in line with current federal policy regarding new rail extension while still addressing the overall objective of the original scope of the NSTIP. The elements of work now consist of station improvements at Salem, Lynn, Wonderland and Revere Beach Stations.

Probable Funding: Section 3

FY'85 Activities:

During FY'85 final design will commence.

FY 85 TIP Transit Element  
Renovation Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
22 CATA Bus Garage	0.0	0.03	0.0	0.0	0.03

Project Description:

Improvements to the Cape Ann Transportation Authority's bus garage.  
The project includes the following elements:

Emergency drain work  
Emergency fuel tank work  
Architects fees  
Tools

Probable Funding: Section 9

FY'85 Activities:

Implement entire project.

II.3 REPLACEMENT PROJECTS

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
23 West/Northwest Bus Garage	0.0	0.0	20.0	0.0	20.0

Project Description:

Construction of a new garage to house approximately 200 buses serving the west/northwest section of the region. This would permit the closing of the smaller, less efficient facilities now used. This project is not under active consideration at the present time, but may be advanced later.

Probable Funding: Section 3

FY'85 Activities:

None.

24 Arborway Garage	0.0	0.0	27.0	0.0	27.0
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Project Description:

Construction, at the site of the present Arborway bus garage and streetcar carhouse, of a new bus-repair building with operator and maintenance crew lobbies. Approximately 200 to 250 buses would be housed, including some reassigned from other garages as well as those currently assigned to Arborway. Increased inside storage would improve the condition and reduce the maintenance and operating cost of the fleet. This project is not under active consideration at the present time, but may be advanced later.

Probable Funding: Section 3

FY'85 Activities:

None.

FY 85 TIP Transit Element  
Replacement Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
25 Lechmere Station	2.0	0.0	30.0	15.0	45.0

Project Description:

As part of the Green Line Northwest Corridor Project, Lechmere Station is to be relocated to the north side of McGrath O'Brien Highway between East and Water streets. The relocated station will include Green Line and bus loading and unloading areas, commuter parking, sheltered fare collection and waiting areas, and work-train storage areas. The new station will have the capabilities of storing trains, provisions to accommodate a Green Line extension, power sub-station and a maintenance facility which will be designed to accommodate immediate needs as well as the future extension.

Probable Funding: Section 3

FY'85 Activities:

The funds received during FY'84 will be sufficient to advance the design of the project through '85 and part of '86.

26 Roxbury-South End Replacement Project	0.0	2.0	38.0	0.0	40.0
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Project Description:

With the completion of the relocated Orange Line through the Southwest Corridor, the existing elevated structure will be removed, under current plans. With this in mind, the MBTA is currently conducting a study of alternative methods of improving the transit service in the South End, Roxbury, North Dorchester, and Mattapan. Among the solutions being examined are buses in mixed traffic, trackless trolleys and light rail to serve the radial travel pattern of these areas, and buses in mixed traffic for circumferential service.

Probable Funding: Interstate Transfer

FY'85 Activities:

Selection and design of preferred alternative.

FY 85 TIP Transit Element  
Replacement Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
27 Rehabilitation of Old Buses and Purchase of New Buses	9.4	17.0	68.0	80.0	165.0

Project Description:

Purchasing new buses is a continuous program of the Authority, which proceeds at an annual rate designed to gradually reduce the average age of the total bus fleet and to rehabilitate its existing fleet to better serve the riding public. The Authority plans to purchase 100 new buses each year. The requirements for the purchase of additional or replacement lift-equipped vans for The Ride, the Authority's special mobility service, are also carried under this program.

Probable Funding: Section 3

FY'85 Activities:

The Authority will continue its rehabilitation of old buses and purchase of new buses in accordance with UMTA guidelines.



FY 85 TIP Transit Element  
Replacement Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
28 North Station Transportation Improvements Project	0.0	3.0	117.0	0.0	120.0

Project Description:

The Authority is participating with the Boston Redevelopment Authority and other state and federal agencies and private developers in planning the redevelopment of the North Station area.

As part of this effort the Authority initiated a contract to design transportation improvements in the North Station area. The contract covers the design engineering services necessary for a study of various alternatives and the development of contract documents for the relocation of the Green Line between Haymarket Square and Science Park Station. Also included is the development of a new Green Line station, a Commuter Rail Terminal, track and signal reconstruction on the three commuter rail main lines, Draw 1 and 2 reconstruction and the relocation of Towers A, H and X.

Probable Funding: Section 3

FY'85 Activities:

Complete Phase I design of preferred Green Line alternative. Phase II preliminary design will be undertaken.

29 Rolling Stock Replacement Parts	5.0	5.0	40.0	50.0	95.0
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Project Description:

FY'83 Section 9A Block Grant program and the current Section 9 Block Grant allow funds for the purchase of rolling stock equipment replacement parts. UMTA regulations allow for this type of procurement, provided that the replacement parts cost more than 1% of the current replacement value of the vehicle itself.

Probable Funding: Section 9

FY'85 Activities:

Continue purchase of rolling stock equipment replacement parts in accordance with UMTA regulations.

FY 85 TIP Transit Element  
Replacement Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
30 Fort Point Channel Bridge Replacement	0.0	1.0	12.0	0.0	13.0

Project Description:

This project would replace the present bridge on the south side located directly outside of South Station in the Fort Point Channel area. A consultant is presently evaluating the existing structure and cost associated with the repair/replacement of this bridge.

Probable Funding: Section 3

FY'85 Activities:

Funds would allow for design of the South Side Bridge.

FY 85 TIP Transit Element

II.4 EXPANSION PROJECTS

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
31 Wellington Station	0.0	0.0	36.5	0.0	36.5

Project Description:

In support of a redevelopment plan for the Wellington Station area, it is proposed to construct a 2,300-car parking garage on air rights over the MBTA maintenance area.

Probable Funding: Section 3

FY'85 Activities:

None.

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
32 South Station Transportation Center	30.0	28.3	52.0	0.0	80.3
(non-UMTA funds)	30.0	5.5	75.0	100.0	180.5

Project Description:

The MBTA, Boston Redevelopment Authority and the Federal Railroad Administration have jointly developed a master plan to transform South Station into a major transportation center. The completed facility will provide for improvements in existing intercity and commuter rail services, direct connections from South Station terminal to a renovated Red Line rapid transit station, parking for approximately 2,000 cars, an intercity and commuter bus terminal, and retail and commercial office space. The MBTA has received Urban Initiatives funding which will provide for the first phase of renovation for the rapid transit station, funding for the transportation center construction items which are the responsibility of the MBTA in Phase I of the South Station Transportation Center, and continuing design of the intercity and commuter bus terminal. The future funds would enable completion of Phase II of the Transportation Center, and the Red Line Platform Lengthening and Station Modernization.

Probable Funding: Section 3

FY'85 Activities:

With FY'85 funding the Authority will complete the Red Line Station Platform lengthening and Modernization Program, complete design of South Station Transportation Center Phase II and initiate some early Phase II construction items.



FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
33 Acquisition of Additional Red Line Cars	4.0	3.0	2.0	0.0	5.0

Project Description:

Additional cars will be needed for the Red Line when service is opened to Alewife Station in West Cambridge. The current target date for starting that service is early 1985. Cars will be in six-car trains when the platform lengthening work scheduled as part of the Station Modernization Phase III program is completed. 54 new cars will be purchased with previous funding with an option to purchase four additional new cars.

Probable Funding: Interstate Transfer

FY'85 Activities:

Option to purchase four additional new cars, and for change orders, cost escalation and project administration.

34 Commuter Boat(s)	0.0	0.0	1.6	0.0	1.6
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Project Description:

This alternative means of travel from the South Shore to Boston would relieve congestion on the Southeast Expressway. This would require the procurement of two (2) commuter boats.

Probable Funding: Section 3

FY'85 Activities:

None

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
35 Oak Grove North	0.0	0.0	0.0	125.0	125.0

Project Description:

Extension of the Orange Line from Oak Grove to Route 128. Existing rail and bus service will provide satisfactory service levels for near-term needs. The Orange Line extension, however, would provide substantial user time savings and passenger capacity and is retained as a long-range option. The extension would follow the Reading Branch railroad right-of-way and have five high-platform stations, at approximately the same locations as the present commuter rail stations, and a terminus at Route 128. The line could be built at the present railroad grade, with at-grade crossing of all streets; could be entirely grade-separated; or could be grade-separated at intersections with major streets, and cross minor streets at-grade.

Probable Funding: Section 3

FY'85 Activities:

None

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
36 Red Line Northwest Extension (Harvard-Alewife)	13.6	35.0	0.0	0.0	35.0

Project Description:

Extension of the Red Line from Harvard to Alewife Brook Parkway, provides service to neighborhoods in North Cambridge, Somerville, and Arlington and to more distant communities through the provisions of parking and bus access. The extension uses existing Red Line technology. From the new Harvard Square Station, a tunnel was bored north to new stations at Porter Square (where transfer from commuter rail and bus will be possible), and Davis Square (where transfer from bus will be possible). The extension proceeded, using cut-and-cover construction, to Alewife Brook Parkway, where a large parking garage and a bus transfer facility are being constructed.

Probable Funding: Interstate Transfer

FY'85 Activities:

Funding will be used for the completion of the garage, an interim access road, and for cost overruns.

37 Red Line Northwest Extension (Alewife-Rt. 128)	0.0	0.0	0.0	435.0	435.0
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Project Description:

This project consists of the extension of the Red Line from Alewife Station to Route 128 in Lexington via the Lexington Branch railroad right-of-way. Stations are proposed for Arlington Center, Arlington Heights, Lexington Center and Route 128. Due to funding limitations and state legislation, this project has been deferred.

Probable Funding: Section 3

FY'85 Activities:

None

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
38 Green Line Extension to Tufts	0.0	0.0	0.0	75.0	75.0

Project Description:

Extension of the Green Line from its present terminal at Lechmere through Somerville to a point near Tufts University in Medford. Lechmere Station would be relocated to the east of McGrath Highway with the Green Line continuing north along the New Hampshire Division railroad right-of-way to Ball Square, Somerville and beyond to Tufts University, Medford. The entire route is free of grade crossings. Alternative terminal locations are Ball Square and Washington Street. The relocation of Lechmere Station and associated costs are being carried as a project distinct from the extension.

Probable Funding: Section 3

FY'85 Activities:

None



FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
39 Green Line Extension to Brighton	0.0	0.0	0.0	9.0	9.0

Project Description:

Restoration of the light-rail service, as far as the Oak Square loop in Brighton, that was suspended in 1969 and replaced with bus service to Kenmore Square. Service, which then extended to Watertown Square, was suspended chiefly because of shortage of equipment.

The new Green Line vehicles along with the LRV's and rehabilitated PCC cars may make it feasible to restore this service, which would use the existing Green Line reservation between Packard's Corner and Kenmore Square and the existing tunnel between Kenmore Square and Park Street. In order to allow the service to operate efficiently, the tracks would be rebuilt in a mid-street reservation along Brighton Avenue between Packard's Corner and Union Square; beyond Union Square, existing tracks in the street would be used.

Probable Funding: Section 3

FY'85 Activities:

None

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
40 Orange Line Relocation	0.0	29.0	0.0	0.0	29.0

Project Description:

A major new transit facility in the Southwest Corridor, replacing the existing Orange Line, to be located in the current Amtrak/commuter rail right-of-way. Orange Line and railroad tracks will be in an open cut, with cross streets bridged over and noise barriers provided where necessary. Present plans call for an arterial street alongside this facility for all or part of its length. The relocated line will connect with the existing tunnel just south of Essex Station and proceed through tunnels until rising to grade by the Massachusetts Turnpike. New stations will be built at Back Bay, Massachusetts Avenue, Ruggles Street, Roxbury Crossing, Jackson Square, Boylston Street, Green Street and Forest Hills. The Washington Street elevated will eventually be removed. During construction, railroad services have been rerouted or replaced with express buses.

Probable Funding: Interstate Transfer

FY'85 Activities:

The continuation of the project.

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
41 Forest Hills to Needham Service	32.0	9.3	0.0	0.0	9.3

Project Description:

Commuter Rail Service along MBTA's Forest Hills to Needham Corridor will be restored in late 1986. The entire right-of-way from Forest Hills to Needham Heights will be rebuilt including new ballast, ties and continuous welded rail. A new signal and communication system will be installed and an electric layover facility will be constructed in Needham. Two passing track sections are included in the project that will enable the Authority to maintain a level of service similar to what was in place prior to the termination of service in 1979. The project also includes the purchase of 3 new locomotives and 18 new or rebuildable coaches.

Probable Funding: Interstate Transfer

FY'85 Activities:

Construction for all elements of the project will commence in 1985.

42 Rail Service to Brockton	0.0	0.0	10.0	0.0	10.0
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Project Description:

Restoration of passenger rail service over the existing railroad right-of-way between Brockton and Quincy. Service options are: (1) an extension of the Red Line from South Braintree; (2) a separated commuter rail line all the way into Boston; (3) a railroad shuttle to South Braintree or South Quincy Adams Station on the Red Line, possibly operating to Cape Cod; and (4) a special light-weight diesel rail car operating on its own right-of-way beyond Quincy and sharing the Red Line tracks inside Quincy.

Probable Funding: Section 3

FY'85 Activities:

None

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
43 Bowdoin - Charles Connector	0.0	0.0	100.0	30.0	130.0

Project Description:

The Blue and Red Lines are the only rapid transit lines in the system that do not intersect. Trips using both of these lines require two transfers. This project is a long-range proposal to remedy that deficiency through provision of a connection between the Red and Blue Lines. A connection from Bowdoin Station on the Blue Line to Charles Street on the Red Line is one option that has been considered. A new Blue Line station would be located at Charles Street Circle below street level, with an escalator connection to the Charles Street Red Line station.

Probable Funding: Section 3

FY'85 Activities:

None

44 Brookline Village Connector	0.0	0.0	0.0	13.0	13.0
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Project Description:

This project proposes construction of a short piece of new track from the Brookline Village Station on the Riverside Branch of the Green Line to Huntington Avenue, to join with the tracks of the Arborway Branch of the Green Line. This project would provide service from Brookline Village (as a Green Line Branch) to Huntington Avenue and into Park Street. New building construction in the Brookline Village area makes construction of this connection difficult. Further study will be necessary to determine the feasibility of such a connection.

Probable Funding: Section 3

FY'85 Activities:

None



FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
45 North Station - South Station Connector	0.0	0.0	0.0	106.0	106.0

Project Description:

Construction of a transit link between North and South Station has been proposed in conjunction with the depression of the Central Artery. The new tunnel would run parallel to the depressed Artery and would include underground platforms at North Station, at State Street near the financial district, and at South Station. As of this date, the Federal Highway Administration has approved funding only to replace the decks of the Central Artery. Thus, this project would become viable given a change in federal policy.

Probable Funding: Section 3

FY'85 Activities:

None.

46 Circumferential Transit	0.0	0.0	125.0	0.0	125.0
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Project Description:

Construction of facilities to provide transit service in a circumferential corridor connecting the Sullivan Square area of Charlestown, East Cambridge, MIT, Boston University, the Northeastern University area and the proposed Roxbury replacement service at Huntington Avenue.

Probable Funding: Section 3

FY'85 Activities:

None.

FY 85 TIP Transit Element  
Expansion Projects

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
47 Blue Line to Lynn	0.0	0.0	0.0	230.0	230.0

Project Description:

Extension of the Blue Line from Wonderland Station in Revere to Central Square in Lynn has been deferred as a result of limitations in Federal funding. The Blue Line tracks would be extended from Wonderland to join the Eastern Route railroad right-of-way south of the Pines River. New rapid transit stations would be located in West Lynn and Central Square.

Probable Funding: Section 3

FY'85 Activities:

None.

II.5 OTHER PROJECTS AND PROGRAMS

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
48 Operating Assistance to MBTA and CATA	0.0	21.5	86.0	NA	107.5

Project Description:

The Section 5 formula grant program included four different funding "tiers". The first three tiers provided operating assistance, while the fourth tier was available only for bus purchases and related facilities. Tiers 1 and 2 were divided between the MBTA and the Cape Ann Transportation Authority (CATA) in proportion to their non-commuter rail operating deficits.

The Surface Transportation Act of 1982 eliminated Section 5 but also provided the option of using Section 9 Block Grant funds for operating, as well as, capital assistance. The MBTA and CATA will share block grant funds for operating assistance as follows:

CATA	45,000
MBTA	<u>21,383,000</u>
	21,428,000

The 2-5 year cost shown assumes continued funding at the FY'85 level.

FY 85 TIP Transit Element  
Other Projects and Programs

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
49 Section 16(b)(2) Elderly & Handicapped Vans for Non- Profit Agencies	0.4	0.4	NA	NA	NA

Project Description:

Federal grants to non-profit agencies for the purchase of vehicles for transporting elderly and handicapped persons are awarded in annual 'rounds'. A round begins when the amount of the federal apportionment to the state is known. This is usually at the beginning of the calendar year, i.e. approximately one quarter into the federal fiscal year. The state then requests grant proposals which are submitted by the end of May. Grant awards are announced in June, and the vehicles themselves are delivered during the next spring and summer.

Federal Fiscal Year 1984 Funding (9th round):

\$368,500 was awarded to FY'84 applicants. Vehicles will be delivered from April 1985 through July 1985. Twenty vehicles will be delivered to nine area agencies.

Federal Fiscal Year 1985 Funding (10th round):

The total federal apportionment to the state should be known by January 1985, and the awards announced by the end of June 1985. Vehicles will be delivered during the spring and summer of 1986.



FY 85 TIP Transit Element  
Other Projects and Programs

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
50 Handicapped Accessibility Program	1.5	1.8	21.0	NA	22.8

Project Description:

The MBTA is continuing a multi modal effort to provide mobility for persons with special needs. The modes are:

Rapid Transit: All new and refurbished passenger equipment and stations will be accessible to handicapped persons. Low cost capital improvements will be made at some existing stations where narrow pass gates are present.

Commuter Rail: Reconstruction of North, South and Back Bay Stations will include high platform access to trains. Mini-high platforms will be constructed at ten other stations.

Fixed Route Buses: Fifty wheelchair lift equipped buses will be purchased in FY'86, augmenting the present 84 lift buses. The Authority is committed to improving and expanding its wheelchair lift equipped fixed route bus system in the future.

Paratransit: THE RIDE continued to expand its service area in 1983. All of Boston and 11 adjacent communities are presently served. Nine to twelve additional communities will be added during late 1984 and early 1985.

The MBTA will add 22 additional lift vehicles to the fleet to support this expanded service (see "Purchases of New Buses" under Replacement Projects).

The proposed FY'86 budget for THE RIDE is \$3 million and FY'87 is estimated to be \$5 million.

Probable Funding: Section 20

FY'85 Activities:

Add additional lift vehicles to the fleet. Additional communities will be added to expand THE RIDE service area. Reconstruction of stations to include high platform access to trains.

FY 85 TIP Transit Element  
Other Projects and Programs

Project or Program Element	Prior Cost: FY 84	Annual	2-5 Yr	FY89+	Future Total
		FY85	FY-FY 86 89		
51 New Technology Introduction Program	0.0	0.0	0.0	0.0	0.0
52 Section 18 Transit Assistance - CATA	0.0	0.03	NA	NA	NA

Project Description:

CATA will receive \$31,000 in Section 18 assistance for FY'84. Of this amount, \$2,500 will be utilized for CATA administrative expenses and the remaining \$28,500 will be utilized for the provision of demand-responsive service for the general public in the towns of Essex, Ipswich and Topsfield. This service is operated by Far-Fetched Transportation, Inc. under contract to CATA.

53 Civilian Dispatcher for MBTA Police Department	0.0	0.05	NA	NA	0.05
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Project Description:

This program would allow the Authority to recruit handicapped as civilian dispatchers for the MBTA Police Department and provide them an opportunity to become involved with urban transit programs. These recruits would allow the police chief to place those officers assigned as dispatchers to the MBTA's stepped up safety operations and patrol of stations. Succeeding years' requests will be based on the success of the program.

Probable Funding: Section 20

FY'85 Activities:

Hire handicapped civilian dispatchers to replace MBTA police dispatchers.

## II.6 TRANSIT CAPITAL PROGRAM SUMMARY

EFFICIENCY PROJECTS			FY85	FY-FY 86 89	FY89+	Future Total
1	SIGNAL IMPROVEMENTS/COMM.....	(3)	28.20	34.00	0.00	62.20
2	PLANT IMPROVEMENTS PHASE IV...	(3)	6.70	0.00	0.00	6.70
3	SYSTEMWIDE PLANT IMPROVEMENTS.	(9)	16.00	50.00	0.00	66.00
4	PARK-RIDE IMPROVEMENTS .....	(3)	4.50	10.00	1.00	15.50
5	TRANSIT EFFICIENCY PROGRAM ...	(9)	0.00	10.00	0.00	10.00
6	CHILD CARE CENTER TRNS BLDG...	(3)	0.20	0.00	0.00	0.20

## RENOVATION PROJECTS

7	TRACK IMPROVEMENTS .....	(3)	30.00	30.00	0.00	60.00
8	POWER IMPROVEMENTS .....	(3)	18.70	21.30	0.00	40.00
9	POWER CABLE REPLACEMENT .....	(3)	2.20	20.30	0.00	22.50
10	SYSTEMWIDE ELECTRIFICATION ...	(3)	16.20	60.80	87.00	164.00
11	TUNNEL REHABILITATION .....	(3)	34.00	39.00	15.00	88.00
12	STATION MODERNIZATION .....	(3)	45.00	20.00	0.00	65.00
13	JFK/U MASS .....	(3)	15.00	3.00	0.00	18.00
14	KENDALL STATION .....	(3)	0.00	1.00	0.00	1.00
15	CRIP PHASE III .....	(3)	3.50	0.00	0.00	3.50
16	CRIP PHASE IV .....	(3)	21.60	25.00	0.00	46.60
17	CRIP PHASE V .....	(3)	0.00	40.00	0.00	40.00
18	SILVERBIRD REBUILD PROGRAM ...	(S)	13.80	5.00	0.00	18.80
19	PURCHASE NEW COMMUTER COACHES.	(3)	43.00	5.00	0.00	48.00
20	LRV IMPROVEMENTS .....	(L)	0.00	50.00	0.00	50.00
21	NORTH SHORE TRANSIT IMPROVEM .	(3)	3.00	42.00	0.00	45.00
22	CATA BUS GARAGE .....	(9)	0.03	0.00	0.00	0.03

## REPLACEMENT PROJECTS

23	WEST/N. W. BUS GARAGE .....	(3)	0.00	20.00	0.00	20.00
24	ARBORWAY GARAGE .....	(3)	0.00	27.00	0.00	27.00
25	LECHEMERE STATION .....	(3)	0.00	30.00	15.00	45.00
26	ROXBURY-S. END REPLACEMENT ...	(I)	2.00	38.00	0.00	40.00
27	PURCHASE/REHAB BUSES .....	(3)	17.00	68.00	80.00	165.00
28	NORTH STATION TRANSP. IMPROV .	(3)	3.00	117.00	0.00	120.00
29	ROLLING STOCK REPLAC PARTS ...	(9)	5.00	40.00	50.00	95.00
30	FORT POINT CHANNEL BRIDGE ....	(3)	1.00	12.00	0.00	13.00

## EXPANSION PROJECTS

31	WELLINGTON STATION .....	(3)	0.00	36.50	0.00	36.50
32	SOUTH STATION TRANSP. CENTER .	(3)	28.30	52.00	0.00	80.30
	SOUTH STATION (non-UMTA cost).	*	5.50	75.00	100.00	180.50
33	ACQUIRE RED LINE CARS .....	(I)	3.00	2.00	0.00	5.00
34	COMMUTER BOAT(S).....	(3)	0.00	1.60	0.00	1.60
35	OAK GROVE NORTH .....	(3)	0.00	0.00	125.00	125.00
36	RED LINE HARVARD - ALEWIFE ..	(I)	35.00	0.00	0.00	35.00
37	RED LINE ALEWIFE - RT 128 ...	(3)	0.00	0.00	435.00	435.00
38	GREEN LINE EXT TO TUFTS .....	(3)	0.00	0.00	75.00	75.00
39	GREEN LINE EXT TO BRIGHTON ...	(3)	0.00	0.00	9.00	9.00

EXPANSION PROJECTS (cont'd)		FY85	FY-FY 86 89	FY89+	Future Total
40	ORANGE LINE RELOCATION . . . . . (I)	29.00	0.00	0.00	29.00
41	FOREST HILLS TO NEEDHAM . . . . . (I)	9.30	0.00	0.00	9.30
42	RAIL SERVICE TO BROCKTON . . . . . (3)	0.00	10.00	0.00	10.00
43	BOWDOIN - CHARLES CONNECTOR .. (3)	0.00	100.00	30.00	130.00
44	BROOKLINE VILLAGE CONNECTOR .. (3)	0.00	0.00	13.00	13.00
45	N. STATION - S. STATION CONN . (3)	0.00	0.00	106.00	106.00
46	CIRCUMFRENTIAL TRANSIT . . . . . (3)	0.00	125.00	0.00	125.00
47	BLUE LINE TO LYNN . . . . . (3)	0.00	0.00	230.00	230.00

\* Not included in totals

#### Transit Capital Funding Schedule

##### FEDERAL COSTS

SECTION 3	256.88	760.40	976.80	1994.08
SECTION 9	16.82	80.00	40.00	136.82
INTERSTATE TRANS	66.55	34.00	0.00	100.55
LRV SETTLEMENT	0.00	0.00	0.00	0.00
STATE BOND FUNDS	0.00	0.00	0.00	0.00
ALL SOURCES	340.26	874.40	1016.80	2231.46

##### STATE COSTS

SECTION 3	64.22	190.10	244.20	498.52
SECTION 9	4.21	20.00	10.00	34.21
INTERSTATE TRANS	11.75	6.00	0.00	17.75
LRV SETTLEMENT	0.00	50.00	0.00	50.00
STATE BOND FUNDS	13.80	5.00	0.00	18.80
ALL SOURCES	93.97	271.10	254.20	619.27

##### TOTAL COSTS

SECTION 3	321.10	950.50	1221.00	2492.60
SECTION 9	21.03	100.00	50.00	171.03
INTERSTATE TRANS	78.30	40.00	0.00	118.30
LRV SETTLEMENT	0.00	50.00	0.00	50.00
STATE BOND FUNDS	13.80	5.00	0.00	18.80
ALL SOURCES	434.23	1145.50	1271.00	2850.73



<u>OTHER PROJECTS &amp; PROGRAMS</u>		<u>Annual FY85</u>	<u>2-5 Year FY-FY '86-'89</u>	<u>FY 89+</u>	<u>Future Total</u>
48	Operating Assistance to MBTA and CATA	21.5	86.0	NA	107.5+
49	Section 16(b)(2)	0.4	NA	NA	NA
50	Handicapped Accessibility Program	1.8	21.0	NA	22.8+
51	New Technology Introduction Program	NA	NA	NA	NA
52	Section 18 Transit Assistance	0.03	NA	NA	NA
53	Civilian Dispatcher for MBTA Police Dept.	0.05	NA	NA	0.05

#### NOTES

- o All figures in millions of dollars.
- o Project budgets are most recent estimates at time of TIP preparation and may be revised to reflect more recent cost estimates before application is submitted.
- o Budget figures on this table include only the portions of the projects which have not yet received Federal funding.
- o Undetermined or not applicable costs have been treated as zero.
- o When transit capital grants are made using Section 3, and Section 9 the Federal Share is 80%. The Federal Share for Interstate Transfer funds is 85% as provided under the Surface Transportation Act of 1978.
- o The MPO retains the flexibility to determine which funding source or sources will be used for any individual project. The actual federal funding sources for individual projects will depend upon various factors at the time of grant approval, i.e., project need versus available federal funding.



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### **III. HIGHWAY ELEMENT**

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The highway element of the TIP lists projects by federal funding category. Within funding categories, the project listing is alphabetical according to the community affected.

Each project entry presents the project name and identifying number used by the MDPW in its management information system. Up to three work items, preliminary engineering, right-of-way acquisition, or construction, may be programmed for each project in both Annual and 2-5 year elements. These costs are expressed in thousands.

Projects may be present in the 2-5 year element even though they are not expected to be funded by FY 1989. The region has established this convention to allow the TIP to present the complete highway program by including projects which are beyond the formally defined scope of the document.

A project cost summary concludes the highway element. Section IV.5 contains an index of projects by all affected communities.

FY85 TIP HIGHWAY ELEMENT

III.1 INTERSTATE

BOSTON	CENT ARTERY CENT,01	011700	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		1300000
Description:	Depression of Central Artery from Charles River to Congress St. (Dewey Sq. tunnel)			

BOSTON	CENT ARTERY NORTH,01	011800	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		200000
Description:	Reconstruction of Central Artery/I-93/Rt-1 interchange from Prison Point Bridge To Charles River			
Also Affects:	CAMBRIDGE			

BOSTON	RT I-93,BOSTON,08	071448	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		7000
Description:	Reconstruction of I-93 interchange with Mass Ave. in Boston			

BOSTON	RT I-93,BOSTON,09	071449	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		0
Description:	Reconstruction of I-93 from 2100' south of East Berkley St. north to Charles River			

BOSTON	SE XWAY,BOSTON,02	070901	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		36000
Description:	Reconstruction of viaduct structure B-16-232 from Mass Ave. north to Mass Turnpike interchange			

BOSTON	THIRD HARBOR TUNNEL,01	133905	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Construction	CON		900000
Description:	Feasibility study of a third harbor tunnel			



FY85 TIP HIGHWAY ELEMENT  
INTERSTATE

PEABODY	RT I95, PEABODY, 01	074200	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Construction	CON	30000	
Description:	Reconstruction of Rt-I-95/Rt-128 interchange in Peabody, Task A, Contract II			
Also Affects:	LYNNFIELD			

Summary of INTERSTATE

7 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	1	6	7
Total	1	6	7

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	30000	2443000	2473000
Total	30000	2443000	2473000

FY85 TIP HIGHWAY ELEMENT

III.2 INTERSTATE RESURFACING (4R)

BOSTON	I-93, BOSTON, 10	071446	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		7500
Description:	Bus, rail, water and transit service expansion during reconstruction of Southeast Expressway			
Also Affects:	MILTON QUINCY			

CANTON	RT I-93, CANTON, 03	071452	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON	250	
Description:	Replace exit signs from Canton I-95 interchange north to N. H. state line			
Also Affects:	BOSTON METHUEN MEDFORD WILMINGTON QUINCY			

CANTON	RT 128, CANTON, 02	086920	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		20000
Description:	Upgrading Rt-I-95 (RT-128) from I-95 Canton to Rt-9, additional lane			
Also Affects:	WELLESLEY DEDHAM NEEDHAM WESTWOOD			

DANVERS	RT I95, DANVERS, 01	073600	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	750	
Description:	Ramp J, Rt-1 NB to Rt-I-95 NB, Sta. 0+00 to Sta. 5+00 (J), Ramp K			

LYNNFIELD	PROTECTIVE SCREENING, 03	058908	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		0
Description:	Bridge screening on Rt-128			
Also Affects:	PEABODY MIDDLETON DANVERS GEORGETOWN BOXFORD NEWBURY SALISBURY			

LYNNFIELD	RT I-95, LYNNFIELD, 01	073980	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		625
Description:	Bridge screening on 17 bridges on I-95 from Rt-1/Rt-128 north to Salisbury			
Also Affects:	SALISBURY PEABODY NEWBURY NEWBURYPORT MIDDLETON DANVERS			

FY85 TIP HIGHWAY ELEMENT  
INTERSTATE RESURFACING (4R)

MARLBOROUGH	RT I290,MARLBOROUGH,02	063601	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		100
Description:	Improvements to Ramp H, northbound from I-290 to Rt-I-495			

MEDFORD	RT I93,MEDFORD,01	071500	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Construction	CON	15000	
Description:	I-93 ramps at Mystic Valley Parkway (Rt 16), provide 2 missing ramps			

MEDFORD	RT-I-93,MEDFORD,05	071707	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON		3000
Description:				
Also Affects:	SOMERVILLE			

NEWTON	PROTECTIVE SCREENING,02	058907	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		0
Description:	Bridge screening on Rt-128			
Also Affects:	WESTON WALTHAM LEXINGTON BURLINGTON WOBURN			

RANDOLPH	RT 128,RANDOLPH,01	087800	Annual	2-5
%Design:	40	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		10000
Description:	Addition of a lane on Rt-128 (I-93) from Rt-24 north to I-95 in Canton			
Also Affects:	MILTON QUINCY CANTON			

SOMERVILLE	RT I93,SOMERVILLE,03	072100	Annual	2-5
%Design:	90	PE		
Design Resp:	State	ROW		
Work Type:	Other	CON	850	
Description:	Noise barriers at Ten Hills housing area			

WESTON	RT 128,WESTON,01	088900	Annual	2-5
%Design:	40	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		10400
Description:	Safety upgrading from Rt-9 to western terminus of Task A, Peabody			
Also Affects:	WALTHAM LEXINGTON BURLINGTON			

FY85 TIP HIGHWAY ELEMENT  
INTERSTATE RESURFACING (4R)

WILMINGTON	RT 129,WILMINGTON,01	089200	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Construction	CON		6000
Description:	Additional ramps I-93/Rt-129, bridge reconstruction, widen Rt-129 to AVCO plant			
Also Affects:	READING			

WOBURN	RT I93,WOBURN,01	072310	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		0
Description:	Recommendations to reconstruct River Rd. and Woburn Industrial Park (I 93, Rt. 128) (CPS)			

Summary of INTERSTATE RESURFACING (4R)

15 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	4	11	15
Total	4	11	15

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	16850	57625	74475
Total	16850	57625	74475



## III.3 CONSOLIDATED PRIMARY

ACTON	RT 2,ACTON,02	095900	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		30000
Description:	Safety improvements from Rt-111 (Acton) east to Crosby's Corner (Concord)			
Also Affects:	CONCORD			
BEVERLY	RT 128,BEVERLY,01	086880	Annual	2-5
%Design:	80	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON	3500	
Description:	Resurfacing from Brimbal Ave. north to Manchester town line			
Also Affects:	WENHAM			
BOSTON	DANA AVE,BOSTON,01	018400	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		200
Description:	Bridge B-16-170 over CONRAIL			
BRAINTREE	RT 3,BRAINTREE,07	108401	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Landscape	CON	250	
Description:	Landscaping NB roadway of Rt 3 (2nd stage)			
Also Affects:	QUINCY			
BURLINGTON	RT-3,BURLINGTON,03	108503	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON	3760	
Description:	Resurfacing from Rt I-95/128 in Burlington, north to Treble Cove Rd., Billerica			
Also Affects:	BEDFORD BILLERICA			
CAMBRIDGE	RT 2,CAMBRIDGE,01	096500	Annual	2-5
%Design:	5	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		23000
Description:	Alewife Brook Pkwy. reconstruction, bridge C-1-21, from Lakeview Ave.- Lake St., MBTA extension access and parking			
Also Affects:	ARLINGTON BELMONT			

FY85 TIP HIGHWAY ELEMENT  
CONSOLIDATED PRIMARY

CONCORD	RT-2,CONCORD,03	096904	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON	2056	
Description:	Resurfacing from 1 mile west of Newton Rd., Littleton, east to Concord rotary			
Also Affects:	LITTLETON ACTON BOXBOROUGH			

DUXBURY	RT 3A,DUXBURY,02	109910	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON	1200	
Description:	Resurfacing Rt 3A from Marshfield town line to Kingston town line			

FRAMINGHAM	RT 30,FRAMINGHAM,03	110951	Annual	2-5
%Design:	90	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	1750	
Description:	Reconstruct Cochituate Rd (Rt-30) from Burger King to the Mass Pike interchange			

FRAMINGHAM	RT 9,WORCESTER,01	125450	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Other	CON		0
Description:	Aerial survey of Rt. 9 conducted from Worcester-Shrewsbury town line to Framingham-Southborough town line			
Also Affects:	SHREWSBURY WORCESTER SOUTHBOROUGH			

HINGHAM	RT 3A,HINGHAM,03	110060	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	1500	
Description:	Reconstruct Lincoln St. (Rt-3A) from Back River to Fottler Rd., remove bridge H-15-11, Beal St. extention			

HINGHAM	RT 3A,HINGHAM,03A	110063	Annual	2-5
%Design:	45	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		0
Description:	Reconstruct Lincoln St. (Rt-3A) from Back River to Fottler Rd., remove bridge H-15-11, Beal St. extention			

FY85 TIP HIGHWAY ELEMENT  
CONSOLIDATED PRIMARY

LITTLETON	RT-2,HARVARD,02	097403	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON	1162	
Description:	Resurfacing from Rt-110 in Harvard east to Rt-I-495, Littleton			
Also Affects:	HARVARD			
MEDWAY	RT 109,MEDWAY,01	079800	Annual	2-5
%Design:	30	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	2500	
Description:	Reconstruct Rt-109, from Farm St. in Millis to Coffee St. in Medway (Proj.#1)			
Also Affects:	MEDWAY MILLIS			
MILFORD	RT 109,MILFORD,02	079801	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	500	
Description:	Reconstruct Rt-109 in Milford from Birch St. to I-495 (Proj. #2)			
PEABODY	LOWELL ST,PEABODY,01	040540	Annual	2-5
%Design:	35	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON	1000	
Description:	Reconstruction of Lowell St. ramps at Rt-128, Peabody, Task A, Contract III-A			
PEABODY	RT 1,PEABODY,03	076160	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		250
Description:	Rt 1, Ramp G over Ramp F (deck replacement on Rt. 1)			
REVERE	RT 1,REVERE,01	076300	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		55000
Description:	Safety upgrading from Copeland Circle, Revere, to Rt 128, Lynnfield			
Also Affects:	MALDEN SAUGUS LYNNFIELD			

FY85 TIP HIGHWAY ELEMENT  
CONSOLIDATED PRIMARY

REVERE	RT 60,REVERE,03	118150	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Traffic	CON		125
Description:	Traffic signals and left turn storage on Rt 60 (Squire Rd.) at Washington Ave. and Wesley St.			
Also Affects:	MALDEN			

SUDBURY	RT 20,SUDBURY,01	100800	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		1500
Description:	Rt 20 (Boston Post Rd.) at Nobscot Rd. and Union Ave. (widening, channelization, signals)			

WEYMOUTH	RT-3,WEYMOUTH,03	109101	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		30000
Description:	Rt 3, add-a-lane, from Rt 18 Weymouth south to near Rt 14, Duxbury			
Also Affects:	HINGHAM ROCKLAND NORWELL HANOVER MARSHFIELD DUXBURY			

Summary of CONSOLIDATED PRIMARY

21 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	11	10	21
Total	11	10	21

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	19178	140075	159253
Total	19178	140075	159253



FY85 TIP HIGHWAY ELEMENT

III.4 RURAL SECONDARY

MILLIS	MILLIS, ONE LOCATION, 01	047502	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		200
Description:	Reconstruction of the intersection of Pleasant and Village Sts.			

MILLIS	MILLIS, 7 LOCATIONS, 01	047501	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		1100
Description:	Middlesex, Union, Curve, Exchange, Plain, and Pleasant Sts. intersections			

TOPSFIELD	MAIN ST, TOPSFIELD, 01	042280	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON	500	
Description:	Reconstruct Main St. from High to Prospect			

Summary of RURAL SECONDARY

3 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	1	2	3
Total	1	2	3

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	500	1300	1800
Total	500	1300	1800

FY85 TIP HIGHWAY ELEMENT

III.5 URBAN SYSTEMS CITY OF BOSTON

BOSTON	DUDLEY ST EXT, BOSTON, 01	021300	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	2800	
Description:	New Dudley St. from Roxbury St. to Washington St. (in conjunction with Phase I Terminal, BRA)			

BOSTON	BOSTON PEDEST SIGNALS, 01	006800	Annual	2-5
%Design:	75	PE		
Design Resp:	City	ROW		
Work Type:	Traffic	CON	2500	
Description:	Conversion of 48 pedestrian signals to comply with national codes (BRA)			

BOSTON	NORTHERN AVE CONNECT RDS		Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Construction	CON		5000
Description:	Sleeper St., Pittsburg St., two new roads.			

BOSTON	COLUMBIA ROAD II		Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		1500
Description:	Columbia Road from railroad right-of-way to Blue Hill Avenue			

BOSTON	BLUE HILL AVE. II		Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		1000
Description:	Blue Hill Avenue from Morton St. to Mattapan Square			

BOSTON	COLUMBUS AVE.		Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		1000
Description:	Columbus Avenue from Egleston Square to Jackson Square			

BOSTON	CENTER STREET		Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		1000
Description:	Center St. from Jackson Square to New Dudley I			

FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS CITY OF BOSTON

BOSTON	DEWEY SQUARE		Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Traffic	CON		5000
Description:	Overall street circulation improvements			

BOSTON	MASSACHUSETTS AVENUE		Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		10000
Description:	Massachusetts Ave. from the Southeast Expressway to Columbia Road (Edward Everett Square)			

Summary of URBAN SYSTEMS CITY OF BOSTON

9 projects

Items:

Costs:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	2	7	9
Total	2	7	9

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	5300	24500	29800
Total	5300	24500	29800

NOTE: Boston is developing a citywide transportation plan. It anticipates changes and additions to the 2-5 year element as the plan becomes more refined.

FY85 TIP HIGHWAY ELEMENT

III.6 URBAN SYSTEMS BOSTON URBANIZED AREA

ARLINGTON	ARLINGTON,MASS.AVE.,01	002100	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON	2300	
Description:	ATP #1, Project 81, 14 locations along Mass Ave., Mystic St., Medford St. (Arlington Center area)			
ASHLAND	ASHLAND,CBD,01	002404	Annual	2-5
%Design:	90	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		2000
Description:	Reconstruction of Main St. from Myrtle St. to Rt. 135, Pleasant St. from Main St. to High St.			
ASHLAND	ASHLAND,5 LOCATIONS,01	002400	Annual	2-5
%Design:	90	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON	850	
Description:	6 locations, ATP #1, LOC #1, 2, 3, 4, 7+8 -W. Union St., Summer St., Cherry St.			
BEDFORD	GREAT RD,BEDFORD,01	029500	Annual	2-5
%Design:	25	PE		
Design Resp:	City	ROW		
Work Type:	Traffic	CON		500
Description:	Great Rd., (Rtes 4 + 225) at Bedford shopping center, including Hillside connection			
BELMONT	BELMONT,7 LOCATIONS,01	004830	Annual	2-5
%Design:	25	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		500
Description:	Reconstruction at 7 locations			
BEVERLY	BRIMBAL AVE,BEVERLY,01	008110	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		3500
Description:	Brimbal Ave. access across Rt. 128 to North Shore Circus			



FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

BOSTON	WASHINGTON ST,BOSTON,01	138500	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		2300
Description:	Washington St., Dedham Circle, Dedham, to West Roxbury Pkwy., Boston (West Roxbury)			
Also Affects:	DEDHAM			

BRAINTREE	UNION ST,BRAINTREE,01	135250	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		0
Description:	Union, Liberty and Commercial St., intersection, also includes Union St. and Cleveland Ave. intersection			

BRAINTREE	5 CORs,BRAINTREE,01	144400	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Construction	CON		2000
Description:	5 Corners, Rt. 37 (Franklin and Granite Sts.), West St. intersection			

BROOKLINE	BROOKLINE,2 LOCATIONS,01	009350	Annual	2-5
%Design:	30	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		350
Description:	Improvements at Pearl St. and Brookline Ave. / Brookline Ave. at Washington St.			

BROOKLINE	BROOKLINE,6 LOCATIONS,01	009400	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON	800	
Description:	Project 65, 5 locations on Rt. 9 between Reservoir Rd. and Cypress St.			

BROOKLINE	CYPRESS ST,BROOKLINE,01	018200	Annual	2-5
%Design:	25	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON		75
Description:	Cypress St. at Kendall St. (signals, traffic improvements)			



FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

BROOKLINE	STA SIG UPD,DIST.4,01	131365	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Signals	CON		125
Description:	Traffic signal reconstruction on Rt. 9 at Hammond St., Tully St., Prospect St. and Woodcliff Rd.			
Also Affects:	FRAMINGHAM NEWTON			
BURLINGTON	MIDDLESEX TPK,BURLING,01	046600	Annual	2-5
%Design:	100	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	2500	
Description:	Reconstruction and widening of Middlesex Tnpk., Lexington St. to south of Adams St.			
CAMBRIDGE	CAMBRIDGE,11 LOC,01	010650	Annual	2-5
%Design:	33	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		400
Description:	Update traffic signals and install new signals at 11 locations			
CAMBRIDGE	HARVARD SQ,CAMBRIDGE,01	031140	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		600
Description:	Reconstruct Boylston, Eliot, Bennett Sts. and University Road			
CAMBRIDGE	RINDGE AVE.EXT,CAMBRIDGE	060480	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Construction	CON		4500
Description:	Construct Rindge Ave. Extension from Alewife Pkwy. over railroad to New St. and Concord Ave.			
CANTON	RT 138,CANTON,02	090450	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Signals	CON		40
Description:	Traffic signal reconstruction on Washington St. (Rt. 138), Roy St. and Blue Hill River Rd., Canton			
CANTON	WASHINGTON ST,CANTON,01	138650	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Traffic	CON		100
Description:	Traffic signals on Washington St. at Pleasant and Dedham Sts.			

FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

CHELSEA	CHELSEA,ATP,01	013800	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		2300
Description:	Beecham, Williams, Marginal, Eastern Ave., Broadway (from Williams to Mystic River)			
EVERETT	RT 99,EVERETT,01	125800	Annual	2-5
%Design:	90	PE		
Design Resp:	State	ROW		
Work Type:	Widening	CON	2043	
Description:	Broadway (Rt. 99), from Boston city line to Bartlet St.			
Also Affects:	BOSTON			
FRAMINGHAM	RT 126,FRAMINGHAM,01	086450	Annual	2-5
%Design:	50	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		1000
Description:	Reconstruction of Rt. 30 from Burger King to Concord St. (Rt. 126), reconstruction of the intersection of Rt. 30 and Rt. 126, reconstruction of Rt. 126 between Rt. 30 and Rt. 9			
FRAMINGHAM	TEMPLE ST,FRAMINGHAM,01	133520	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		100
Description:	Provision of right turn lane and improvement of sight distance at exit approach			
GLOUCESTER	WASHINGTON ST,GLOUCESTER	138950	Annual	2-5
%Design:	20	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		200
Description:	Reconstruction of Washington St. (Rt. 127)			
HINGHAM	HINGHAM,9 LOCATIONS,01	032700	Annual	2-5
%Design:	95	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON	1600	
Description:	Rt. 3A at North St. and Water St., Rt. 3A at Summer and Green Sts., Rt. 53 at Gardner and Derby			
HOLBROOK	HOLBROOK,5 LOC,01	033000	Annual	2-5
%Design:	90	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON	480	
Description:	5 locations, South St. at Spring, Rt. 37 at Quincy, South St., Tech. Park Drive, etc.			

FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

LEXINGTON	BEDFORD ST, LEXINGTON, 01	004550	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		1875
Description:	Improvements to Rts. 4 and 225 from Rt. 128 to Winter St.			

LEXINGTON	HARTWELL AVE, LEXINGTON, 0	031050	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		1200
Description:	Improvements to Hartwell Ave. from Bedford St., Maguire Rd. to Wood St.			

LEXINGTON	MARRETT RD, LEXINGTON, 01	043550	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		900
Description:	Improve Rt. 2A from Rt. 128 to beyond Mass Ave. extension			

LYNN	WASH.+BROAD STS., LYNN, 01	138060	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		2500
Description:	Reconstruction of Washington and Broad Streets			

MALDEN	EASTERN AVE, MALDEN, 02	023130	Annual	2-5
%Design:	70	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		1000
Description:	Eastern Ave., Lynn St. and Beach St. intersection (channelize, signals, RR crossing)- Linden			

MALDEN	EASTRN/BROADWAY, MALDEN, 1	023125	Annual	2-5
%Design:	60	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		2400
Description:	Reconstruction of Eastern Ave.			

MALDEN	PLEASANT ST MALL, MALDEN	056650	Annual	2-5
%Design:	90	PE		
Design Resp:	City	ROW		
Work Type:	Construction	CON		2000
Description:	Construction of a mall on Pleasant St.			



FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

MARBLEHEAD	OCEAN, ATLANTIC, MARBLEHD	053305	Annual	2-5
%Design:	0	PE		
Design Resp:		ROW		
Work Type:		CON		100
Description:	Intersection improvements at Atlantic and Ocean Streets			

MARLBOROUGH	BOUNDARY ST, MARLBORO, 01	006870	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		1000
Description:	Reconstruction of Boundary St. because of flood control dam across Assabet River			
Also Affects:	NORTHBOROUGH			

MARLBOROUGH	MARLBORO, 3 LOC, 01	043510	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		1600
Description:	Reconstruction of Reservoir, Williams, and Felton Sts.			

MEDFORD	CORPORATION WAY, MEDFORD	140100	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Other	CON		3500
Description:	Construction of interchange on Revere Beach Parkway at Wellington Station and Corporation Way			

MEDFORD	MYSTIC AVE, MEDFORD, 01	049060	Annual	2-5
%Design:	90	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		2000
Description:	Reconstruction from Fulbright St. to Main St. (sidewalk, curbing, drainage, resurfacing, etc.)			

MELROSE	MELROSE, SYLVAN ST, 01	045252	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	635	
Description:	Reconstruction, widening and realignment of Sylvan St.			

MELROSE	MELROSE, TREMONT ST, 01	045253	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	500	
Description:	Reconstruction, widening and realignment of Tremont St.			

FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

MIDDLETON	RT 114,MIDDLETON,02	081781	Annual	2-5
%Design:	25	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		850
Description:	Reconstruction of N. Main St. (Rt. 114) from Lakeview Ave. to Boston St. (Middleton Square)			
MILTON	MILTON,13 LOCATIONS,01	047600	Annual	2-5
%Design:	100	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON		624
Description:	13 locations, Granite/Adams, Bryant/Boulevard, etc.			
NATICK	RT-135,3 LOCS, NATICK,03	090101	Annual	2-5
%Design:	25	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON		255
Description:	Traffic signals at Rt. 135 & Rt. 27, Hartford and Mill Streets, Rt 135 & Kendall			
NEEDHAM	HIGHLAND AV CORRIDOR,01	032670	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		5000
Description:	Needham St./Highland Ave. corridor from Rt. 128 (Needham) to Centre and Walnut St. intersection			
Also Affects:	NEWTON			
NEWTON	BEACON ST,NEWTON,01	004300	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		850
Description:	Hammond St. and Beacon St., Reservoir Rd. at Beacon St., Beacon St. median, 1-way street system			
Also Affects:	BROOKLINE			
NEWTON	GROVE ST,NEWTON,02	030111	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		125
Description:	Reconstruct Grove St. from Rt. 128 to Riverside MBTA station			
NORTH READING	RT 28,NORTH READING,01	107000	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		2800
Description:	Reconstruct Main St. (Rt. 28) from Sta. 70 to Sta. 134 + 60 (Reading town line)			



FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

NORWOOD	NAHATAN ST,NORWOOD,03	049921	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	No entry	CON	1200	
Description:	Reconstruct Nahatan St. from Pleasant St. to Washington St.			

NORWOOD	UNIVERSITY AV,NORWOOD,02	135601	Annual	2-5
%Design:	45	PE		
Design Resp:	Town	ROW		
Work Type:	No entry	CON		900
Description:	University Ave. Phase 2, University Ave. and Everett St.			

PEABODY	PEABODY,CBD STS,01	056055	Annual	2-5
%Design:	100	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON	2000	
Description:	Contract 'A', Walnut and Washington Sts.			

PEABODY	PEABODY,CBD STS,02	056056	Annual	2-5
%Design:	75	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON	2200	
Description:	Contract 'B', Central, Lowell Sts. and Peabody Square			

QUINCY	RT 37,QUINCY,01	112150	Annual	2-5
%Design:	75	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		500
Description:	Willard St. (Rt. 37) between the National Fire Protection Association and West St.			

RANDOLPH	RANDOLPH,7 LOCATIONS,01	059800	Annual	2-5
%Design:	50	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		1000
Description:	7 locations (formerly 10) Rt. 28 at Memorial Dr. / Short St. / Rt. 139 / Pleasant St. / at Fire St.			

REVERE	FENNO/BEACH ST,REVERE,01	025105	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		3000
Description:	Reconstruct Fenno St. and Beach St. as an east/west arterial			

FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

SHARON	SHARON,4 LOCATIONS,01	128800	Annual	2-5
%Design:	80	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON	1000	
Description:	4 locations, N. Main St. / S. Main / Depot / Billings / P St (Post Office Square)			
STONEHAM	MONTVALE AVE,STONEHAM,01	048290	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		700
Description:	Reconstruct Montvale Ave. from Rt. I-93 to Rt. 28			
SUDBURY	SUDBURY,4 LOCATIONS,01	132100	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON		174
Description:	Rt. 117 at Haynes Rd., Union Ave. at Concord Rd., Concord Rd. at Pantry Rd., Rt. 20 at Peakham Rd.			
WAKEFIELD	MAIN ST,WAKEFIELD,03	042410	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		1200
Description:	Reconstruct Main St. (Rt. 129) from Lowell St. to Salem St.			
WALPOLE	WALPOLE,3 LOCATIONS,01	137400	Annual	2-5
%Design:	50	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		1100
Description:	4 locations (formerly 6,5,8), Washington St. at High Plain St. / at Common St., East St. at High PLain St.			
WALTHAM	RT 20,WALTHAM,05	101203	Annual	2-5
%Design:	90	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON	1200	
Description:	Replacement 2-level parking deck, including signals, circulation and roadway improvements			
WALTHAM	RT-20,WALTHAM,04	101202	Annual	2-5
%Design:	90	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON	1000	
Description:	Reconstruct Main and School Sts. between Liberty and Spring (Central Square Project)			

FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

WATERTOWN	N BEACON ST,WATERTOWN,01	049610	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		1800
Description:	Reconstruction of North Beacon St.			

WAYLAND	RT 27,WAYLAND,01	105120	Annual	2-5
%Design:	25	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		100
Description:	Installation of traffic control system at Main St. (Rt. 27) and at E. and W. Plain Sts.			

WEYMOUTH	JACKSON SQ,WEYMOUTH,01	035570	Annual	2-5
%Design:	25	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		900
Description:	Urban design plan of lower Jackson Square and two major roadways, Broad and Commercial Sts.			

WILMINGTON	RT-62,WILMINGTON,02	118606	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		0
Description:	Connector 'B' from Connector 'A' NW to intersection of Rts. 129/38/Middlesex			

WINTHROP	VETERANS RD,WINTHROP,01	135820	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		1400
Description:	Reconstruction of Veterans Road			

WOBURN	MISHAWUM RD,WOBURN,02	047901	Annual	2-5
%Design:	25	PE		
Design Resp:	MBTA	ROW		
Work Type:	Other	CON		500
Description:	Mishawum commuter parking facility at Rt. 128 and MBTA, Woburn			

WOBURN	MISHAWUM RD,WOBURN,03	047902	Annual	2-5
%Design:	100	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON	500	
Description:	Reconstruct intersection of Mishawum Rd., Commerce Way, and Rt. 128 SB ramps			

FY85 TIP HIGHWAY ELEMENT  
URBAN SYSTEMS BOSTON URBANIZED AREA

WOBURN	WASHINGTON ST, WOBURN, 01	139350	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		500
Description:	Washington St. at Rt. 128 ramps, road widening and signalization			

Summary of URBAN SYSTEMS BOSTON URBANIZED AREA

69 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	16	53	69
Total	16	53	69

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	20808	64943	85751
Total	20808	64943	85751



## III.7 HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

ASHLAND	HIGH ST.,ASHLAND,01	032140	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		0
Description:	Bridge A-14-12, High St. over railroad			
ASHLAND	HOWE ST.,ASHLAND,01	034107	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruction of bridge A-14-13, Howe St. over CONRAIL			
ASHLAND	HOWE ST.,ASHLAND,02	034108	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruction of bridge A-14-08, Howe St. over Sudbury River			
BELLINGHAM	MAPLE ST,BELLINGHAM,01	043280	Annual	2-5
%Design:	20	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	700	
Description:	Reconstruct bridge #B-6-8 over CONRAIL on Maple St.			
BELMONT	CLARK ST.,BELMONT,02	015296	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruct Clark St. bridge, B-7-1, over RR			
BOSTON	BOSTON ST,BOSTON,02	006902	Annual	2-5
%Design:	10	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	250	
Description:	Reconstruct bridge deck B-16-266 over S.E. Expressway			
BOSTON	CANTERBURY ST,BOSTON,01	011100	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	1000	
Description:	Bridge B-16-107 over CONRAIL Hyde Park			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

BOSTON	COLUMBUS AVE, BOSTON, 01	015880	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		0
Description:	Replace bridge B-16-46 over RR			

BOSTON	CUMMINS HWY, BOSTON, 03	017903	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruct bridge B-16-106, Cummins Hwy. over RR			

BOSTON	DEWEY SQ TUNNEL, 01	019600	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		10000
Description:	Rehabilitation of Dewey Sq. tunnel, walls, lighting, roadway, etc.			

BOSTON	HARVARD BR, BOSTON, 01	031100	Annual	2-5
%Design:	20	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		12000
Description:	Bridge B-16-12=C-1-3 Mass AV. over Charles River			
Also Affects:	CAMBRIDGE			

BOSTON	HYDE PARK AV, BOSTON, 01	034880	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruct bridge B-16-35, Hyde Park Ave. over Mother Brook			

BOSTON	NORFOLK ST, BOSTON, 01	051700	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	1400	
Description:	Bridge B-16-162 over CONRAIL, Dorchester			

BOSTON	NORTHERN AVE, BOSTON, 01	053000	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		10000
Description:	Bridge B-16-184 over Fort Point Channel, relocate Northern-Atlantic Aves. and B St.			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

BOSTON	SUMNER ST,BOSTON,01	132700	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		500
Description:	Bridge B-16-76 over CONRAIL, East Boston			

BOSTON	WEST FIFTH ST,BOSTON,01	140300	Annual	2-5
%Design:	80	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		200
Description:	Bridge B-16-201 over CONRAIL, South Boston (D St. - Dorchester St.)			

BOSTON	WEST FOURTH ST,BOSTON,02	140401	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		2000
Description:	Bridge B-16-126 over CONRAIL South Boston			

BOSTON	WEST SIXTH ST,BOSTON,01	140700	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		225
Description:	Bridge B-16-200 over CONRAIL			

BOSTON	WEST ST,BOSTON,01	140800	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	1300	
Description:	Bridge B-16-108 over CONRAIL and Providence St., Hyde Park			

BRAINTREE	PLAIN ST,BRAINTREE,01	056400	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	Bridge B-21-15, Plain St. (old Rt. 128) over CONRAIL			

CAMBRIDGE	LECHMERE,PHASE II,CAMB,2	037820	Annual	2-5
%Design:	95	PE		
Design Resp:	City	ROW		
Work Type:	Bridge reconstruction	CON	3250	
Description:	Reconstruct Lechemere Canal Bridge (C-1-1) and approaches			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

CAMBRIDGE	RT 2,CAMBRIDGE,02	096600	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		5000
Description:	Bridge C-1-20 replacement over B and M RR (Alewife Brook Parkway)			

CAMBRIDGE	RT 2A,CAMBRIDGE,01	098500	Annual	2-5
%Design:	100	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	2000	
Description:	Bridge C-1-12 Mass. Ave. over B and M RR, Fitchburg Line (Porter Sq.)			

CANTON	BELLINGHAM ST, CANTON,01	004810	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	C-9-3, Bellingham St. over CONRAIL			

CANTON	CHAPMAN ST,CANTON,01	013500	Annual	2-5
%Design:	10	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	1000	
Description:	Bridge C-2-9 over CONRAIL			

CANTON	HIGH ST.,CANTON,D1	032209	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		0
Description:	Replace bridge C-2-8,			

CANTON	RT 138,CANTON,03	090460	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		250
Description:	Bridge C-2-28 Rt. 138 over Rt. 128 (deck replacement)			

CHELSEA	BROADWAY,CHELSEA,01	008250	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	800	
Description:	Bridge C-9-2, Broadway over MBTA / B and M RR			



FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

CONCORD	RT 2,CONCORD,01	096900	Annual	2-5
%Design:	20	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1500
Description:	Reconstruct bridge C-19-22 (Rt. 2 over B and M RR) plus Rt. 2 from Rt. 62 north			

CONCORD	RT 2,CONCORD,02	096903	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1900
Description:	Bridge C-19-20 on Rt. 2 over MBTA / B and M RR, near Fairhaven Rd.			

FRAMINGHAM	BOSTON RD,FRAMINGHAM, 01	006850	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		225
Description:	Bridge F-7-27 over Rt. 9 WB to RR (Marlborough overpass), deck replacement			

FRANKLIN	RT 140,FRANKLIN,02	092000	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	Bridge F-8-5, Unionville Bridge, over CONRAIL			

HANOVER	RT 53,HANOVER,01	114500	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		100
Description:	Bridge H-6-5=P-5-5, Columbia Rd. over North River, Pembroke - Hanover			
Also Affects:	PEMBROKE			

HULL	GEO.WASH BLVD,HULL,01	027800	Annual	2-5
%Design:	15	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	2000	
Description:	Bridge H-15-8=H-26-1 over Weir River Hingham - Hull (repairs)			
Also Affects:	HINGHAM			

LITTLETON	GREAT RD,LITTLETON,01	029225	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Bridge L-13-1, Great Rd. (Rt. 119) over B and M RR			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

LYNN	CHESTNUT ST,LYNN,01	014203	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	Replacement of bridge L-18-10, Chestnut St. over MBTA			

LYNN	FAYETTE ST,LYNN,01	025103	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	Replacement of bridge L-18-11, Fayette St. over MBTA			

LYNN	FOX HILL RD,LYNN,01	026710	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		138
Description:	Drawspan rehabilitation of Fox Hill Bridge, L-18-16, Saugus River			
Also Affects:	SAUGUS			

LYNN	GREEN ST, LYNN,01	029560	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	Replacement of bridge L-18-9, Green St. over MBTA			

MALDEN	CLIFTON ST,MALDEN,01	015430	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1200
Description:	Reconstruct bridge M-1-6, Clifton St. over B and M RR and MBTA			

MALDEN	MOUNTAIN AV,MALDEN,01	048720	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruct bridge M-1-5, Mountain Ave. over B and M RR and MBTA			

MARSHFIELD	RT 3A,MARSHFIELD,01	110200	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	Bridge S-7-2=M-7-2, drawbridge over North River, Marshfield/Scituate			
Also Affects:	SCITUATE			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

MEDFORD	NORTH ST,MEDFORD,01	052300	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		300
Description:	Bridge M-12-14 over B and M RR New Hampshire route main line			
MEDFORD	RT 38,MEDFORD,01	112200	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		400
Description:	Bridge M-12-4, Winthrop St. (Rt. 38) over Mystic River			
MILLIS	PLAIN ST, MILLIS,01	056560	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	M-23-8, Plain Street over CONRAIL			
NATICK	BODEN LANE,NATICK,01	006251	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	N-3-12, Boden Street over CONRAIL			
NATICK	LOKER ST,NATICK,01	039360	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	N-3-13, Loker St.over CONRAIL			
NATICK	MARION ST,NATICK,01	043440	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		640
Description:	Replace bridge N-3-3, Marion St. over MBTA, CONRAIL			
NATICK	NORTH MAIN ST.,NATICK,01	052160	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruction of bridge N-03-06, N. Main St. over CONRAIL			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

NATICK	WALNUT ST.,NATICK,01	137315	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruction of bridge N-03-05, Walnut St. over CONRAIL			
NATICK	WASHINGTON ST, NATICK,01	139180	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		0
Description:	Replacement of bridge N-3-4, Washington St. over RR tracks			
NEEDHAM	HIGH ROCK ST,NEEDHAM,01	032451	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		700
Description:	Bridge N-4-24 (High Rock St.) over RR			
NEWTON	HAMMOND ST,NEWTON,01	030500	Annual	2-5
%Design:	100	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		150
Description:	Bridge N-12-32 over MBTA Riverside Line (Highland Branch) Chestnut Hill			
NORFOLK	MAIN ST,NORFOLK,01	042100	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	900	
Description:	Bridge N-13-3 over Franklin Branch of CONRAIL			
NORFOLK	PARK ST,NORFOLK,01	055810	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	1000	
Description:	Replacet bridge N-13-2, Park St. over MBTA / CONRAIL			
REVERE	RAILROAD AVE, REVERE,01	059720	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	R-5-55, Railroad Ave. over CONRAIL			



FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

REVERE	RT 1A, REVERE, 02	077700	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		500
Description:	Bridge R-5-4, Beach St. (Rt. 1A) over B and M RR			

REVERE	RT 60, REVERE, 01	118000	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Maintenance	CON		300
Description:	Bridge R-5-11, Rt. 60 Revere over Boston and Maine RR			

SALEM	BEVERLY-SALEM PROJ., 01	005402	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge construction	CON	10000	
Description:	Contract 1, Bridge St. Bypass, From Saunder St. to south of Bridge St. Connector			

SALEM	BEVERLY-SALEM PROJ., 02	005403	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge construction	CON		20000
Description:	Contract 2, Beverly / Salem Bridge over Danvers River			
Also Affects:	BEVERLY			

SALEM	BEVERLY-SALEM PROJ., 03	005404	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		20000
Description:	Contract 3, North River viaduct and approaches			

SALEM	BEVERLY-SALEM PROJ., 04	005405	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		10000
Description:	Bypass road - Boston St. to North St.			

SAUGUS	ESSEX ST, SAUGUS, 01	024700	Annual	2-5
%Design:	50	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		500
Description:	Bridge S-5-17 over Rt. 1 plus improvements along Essex St.			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

SAUGUS	RT 107, SAUGUS, 01	079505	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		100
Description:	Bridge S-5-3 (Rt. 107) over east branch of Pines River			

SCITUATE	ED. FOSTER RD, SCITUATE, 01	023399	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		180
Description:	Bridge S-7-4, Edward Foster Rd. over Tidal Creek (Veteran's Memorial Bridge)			

SOMERVILLE	BEACON ST, SOMERVL, 01	004350	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	1500	
Description:	Replace bridge S-17-19 over B and M RR and MBTA			

SOMERVILLE	CEDAR ST, SOMERVILLE, 01	011600	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		500
Description:	Bridge #S-17-12 over B and M RR N.H. route main line			

SOMERVILLE	DANE ST, SOMMERVILLE, 01	018449	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	S-17-18, Dane St. over CONRAIL			

SOMERVILLE	LOWELL ST, SOMERVILLE, 01	040550	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	1500	
Description:	Reconstruct bridges S-17-11 and S-17-15 over MBTA and B and M RR			

SOMERVILLE	SCHOOL ST, SOMERVILLE, 01	127900	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		500
Description:	Bridge S-17-8, over B and M RR N.H. route main line			

FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

SOMERVILLE	WALNUT ST,SOMMERVILLE,01	137349	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	S-17-6, Walnut St. over B and M RR			

SOUTHBOROUGH	RT 85,SOUTHBOROUGH,01	123330	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Replace bridge #S-20-5 on Rt. 85 (Marlborough Rd.) over CONRAIL			

SWAMPSCOTT	DANVERS RD,SWAMPSCOTT,01	018700	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		100
Description:	Bridge #S-34-1 over Boston and Maine RR			

SWAMPSCOTT	ESSEX ST,SWAMPSCOTT,01	024800	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		150
Description:	Bridge S-34-2 over Boston and Maine RR			

WALPOLE	KENDALL ST,WALPOLE,01	036150	Annual	2-5
%Design:	90	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	750	
Description:	Replace bridge W-3-12 Kendall St. over MBTA			

WALPOLE	MYLOD ST,WALPOLE,01	049051	Annual	2-5
%Design:	90	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON	700	
Description:	Reconstruct bridge W-3-10 (Mylođ St.) over MBTA and CONRAIL			

WALPOLE	WEST ST,WALPOLE,01	141058	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		600
Description:	W-3-20, West St. over CONRAIL			



FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

WALPOLE	WEST ST,WALPOLE,02	141059	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		600
Description:	W-3-21, West St. over CONRAIL			
WELLESLEY	KINGSBURY ST,WELLESLEY,01	036500	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		175
Description:	Bridge W-13-8 over CONRAIL			
WELLESLEY	ROUTE 9,WELLESLEY,03	125299	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruction of bridge W-13-06, Rt. 9 over CONRAIL			
WELLESLEY	WESTON RD.WELLESLEY,01	141630	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		1000
Description:	Reconstruction of bridge W-13-10, Weston Rd. over CONRAIL			
WILMINGTON	BILLERICA RR BRIDGES,01	005800	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		0
Description:	4 bridges, Billerica - Gray St., Andover Rd., Brown St., Wilmington - Lake St. (Br. Loc. St.)			
Also Affects:	BILLERICA			
WILMINGTON	BUTTERS ROW,WILMINGTON01	009950	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		400
Description:	Bridge W-38-3, Butters Row over MBTA / B and M RR			
WILMINGTON	RT 62,WILMINGTON,01	118605	Annual	2-5
%Design:	20	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		3500
Description:	Replace bridge W-38-4, Burlington Ave. (Rt. 6 over B and M RR			



FY85 TIP HIGHWAY ELEMENT  
HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

WILMINGTON	WILMINGTON BRIDGE,01	143150	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Construction	CON		265
Description:	New construction of Wilmington bridge W-38-7, (Lake St.) over B and M RR			

WOBURN	NEW BOSTON ST,WOBURN,01	051200	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Bridge reconstruction	CON		800
Description:	Bridge W-43-5 over Boston and Maine RR			

Summary of HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

86 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	17	69	86
Total	17	69	86

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	30050	128998	159048
Total	30050	128998	159048

FY85 TIP HIGHWAY ELEMENT

III.8 CONSOLIDATED PRIMARY (RRR)

DANVERS	RT 128,DANVERS,03	087010	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON	4000	
Description:	From NE of Elliot St., Danvers at Danvers / Beverly line to east of Brimbal Ave., Beverly			
Also Affects:	BEVERLY			

DANVERS	RT 128,DANVERS,04	087020	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Resurfacing	CON		1700
Description:	From Lowell St. bridge in Peabody at Peabody / Danvers line east of Eliott St., Danvers			
Also Affects:	PEABODY			

Summary of CONSOLIDATED PRIMARY (RRR)

2 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	1	1	2
Total	1	1	2

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	4000	1700	5700
Total	4000	1700	5700

FY85 TIP HIGHWAY ELEMENT

III.9 HAZARD ELIMINATION

NO ENTRY	ROUTE MARKERS, DIST.-4	061456	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Sign-light	CON		313
Description:	Route markers assembly, Dist. 4			

HUDSON	RT 85 CONN, MARLBORO, 04	123305	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		0
Description:	Geometric improvements at I-290 connector and Route 85 for left turns			

NORTH READING	LOWELL RD, N READING, 01	040500	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		90
Description:	Intersection of Lowell Rd., North Winter and Park Sts., (channelization and signals) including bridge			

PEABODY	RT 114, PEABODY, 03	082000	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON	1500	
Description:	Reconstruction and widening, Rt. 1 ramps in Danvers to Rt. 128 in Peabody			
Also Affects:	DANVERS MIDDLETON			

READING	RT 28, READING, 01	107310	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON	300	
Description:	Traffic control signal at intersection of Rt. 28 (Main St.) and South St.			

FY85 TIP HIGHWAY ELEMENT  
HAZARD ELIMINATION

Summary of HAZARD ELIMINATION

5 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	2	3	5
Total	2	3	5

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	1800	403	2203
Total	1800	403	2203



FY85 TIP HIGHWAY ELEMENT

III.10 PAVEMENT MARKING PROGRAM

CANTON	RT-24, PAVEMENT MARKINGS	104150	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		125
Description:	Raised pavement markers on Rt. 24 from Taunton north to Rt. 128 Canton			
Also Affects:	BROCKTON TAUNTON			

Summary of PAVEMENT MARKING PROGRAM

1 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	0	1	1
Total	0	1	1

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	0	125	125
Total	0	125	125

FY85 TIP HIGHWAY ELEMENT

III.11 RAIL-HIGHWAY CROSSINGS-CONSTRUCTION (ON FEDERAL-AID SYSTEM)

WAKEFIELD	FOREST ST,WAKEFIELD,01	026620	Annual	2-5
%Design:	25	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON	125	
Description:	Traffic signal at Forest and Main Streets			

Summary of RAIL-HIGHWAY CROSSINGS-CONSTRUCTION (ON FEDERAL-AID SYSTEM)

1 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	1	0	1
Total	1	0	1

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	125	0	125
Total	125	0	125

FY85 TIP HIGHWAY ELEMENT

III.12 RAIL-HIGHWAY CROSSINGS-PROTECTIVE DEVICES (ON FEDERAL-AID SYSTEM

MELROSE	W WYOMING AVE,MELROSE,01	136860	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Signals	CON		150
Description:	Railroad grade crossing improvements			

Summary of RAIL-HIGHWAY CROSSINGS-PROTECTIVE DEVICES (ON FEDERAL-AID SYSTEM

1 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	0	1	1
Total	0	1	1

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	0	150	150
Total	0	150	150

FY85 TIP HIGHWAY ELEMENT

III.13 INTERSTATE TRANSFER

BOSTON	BLUE HILL AVE,BOSTON,02	006001	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		4000
Description:	Reconstruction of Blue Hill Ave. from Grove Hall to Dudley St.			
BOSTON	COMMONWEALTH AV,BOSTN,02	016200	Annual	2-5
%Design:	95	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		11000
Description:	Comm. Ave. Part II (Sec. B), Rt. 30, Packard's Corner (Brighton Ave.) to Warren St.			
BOSTON	HUNTINGTON AVE,BOSTON,03	034700	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		6000
Description:	Fenwood Ave. (Brigham Circle) to South Huntington Ave. (Contract C)			
BOSTON	MAIN ST,CHARLESTOWN,01	041600	Annual	2-5
%Design:	75	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON	3800	
Description:	Reconstruction of Main St. from City Square to Sullivan Square (BRA)			
BOSTON	N. STATION,URB RENEW, PH	052170	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		2500
Description:	Phase I, reconstruction of Merrimac St., Causeway St., and Lomasney Way			
BOSTON	N.STATION,URB REN PHSEII	052171	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		2500
Description:	Phase II			
BOSTON	TRAF CONTR SYS,BOSTON,01	134220	Annual	2-5
%Design:	75	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON	5384	
Description:	Centralized computer traffic control system at approximately 200 locations in Boston			



FY85 TIP HIGHWAY ELEMENT  
INTERSTATE TRANSFER

BOSTON	TRF CNTR SYS 2 BOSTON,02	134221	Annual	2-5
%Design:	100	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		2560
Description:	Centralized computer traffic control system at approximately 200 locations in Boston			

BOSTON	TRF CNTR SYS 3 BOSTON,03	134222	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		4800
Description:	Centralized computer traffic control system at approximately 200 locations in Boston			

BOSTON	TRF CNTR SYS 4 BOSTON,04	134223	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Traffic	CON		3264
Description:	Centralized computer traffic control system at approximately 200 locations in Boston			

CAMBRIDGE	LECHMERE,PHASE III,CAMBR	037822	Annual	2-5
%Design:	85	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		3000
Description:	Improvements to Commercial Ave., Binney St., and a portion of Cambridge Parkway			

CONCORD	RT-2,CONCORD,04	096905	Annual	2-5
%Design:	70	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		1000
Description:	3 locations, Acton, School and Wetherbee Sts., access to land fill, Concord, Walden St. (Rt. 126)			
Also Affects:	ACTON LINCOLN			

DANVERS	DANVERS SQ,DANVERS,01	018750	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON	1000	
Description:	Reconstruction of Danvers Square, Maple St.			

LINCOLN	RT 2,LINCOLN,01	097500	Annual	2-5
%Design:	55	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		5000
Description:	Safety upgrading from Rt. 128, west to vicinity of Bedford Rd., Lincoln			
Also Affects:	CONCORD LEXINGTON			

FY85 TIP HIGHWAY ELEMENT  
INTERSTATE TRANSFER

LINCOLN	RT-2 , LINCOLN, 02	097501	Annual	2-5
%Design:	55	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		5000
Description:	Safety upgrading of Bedford Rd. Intersection at Rt.2 (Lincoln)			
Also Affects:	Concord, Lexington			

MEDFORD	RT-16, MEDFORD, 02	094600	Annual	2-5
%Design:	75	PE		
Design Resp:	MDC	ROW		
Work Type:	Traffic	CON		300
Description:	Intersection of Mystic Valley Parkway (Rt. 16) and Winthrop St. (Rt. 38), signal updating			

NEWTON	COMMONWEALTH AV, NEWTON, 0	016250	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		4000
Description:	Redesign and reconstruct Commonwealth Ave.			

NEWTON	COMMONWEALTH AV, NEWTON, 2	016251	Annual	2-5
%Design:	20	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		4000
Description:	Redesign and reconstruct Commonwealth Ave.			

NEWTON	COMMONWEALTH AV, NEWTON, 3	016252	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		4000
Description:	Redesign and reconstruct Commonwealth Ave.			

NEWTON	LANGLEY RD, NEWTON, 01	037460	Annual	2-5
%Design:	70	PE		
Design Resp:	City	ROW		
Work Type:	No entry	CON		225
Description:	Reconstruct junction of Langley Rd., Jackson St., and Boylston St. (Rt. 9)			

NEWTON	WEST NEWTON SQ., 01	139250	Annual	2-5
%Design:	75	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON	500	
Description:	Reconstruct Washington St. in West Newton Business District at Chestnut St.			

FY85 TIP HIGHWAY ELEMENT  
INTERSTATE TRANSFER

REVERE	BROADWAY, REVERE, 01	008390	Annual	2-5
%Design:	75	PE		
Design Resp:	City	ROW		
Work Type:	Traffic	CON	2300	
Description:	Reconstruction of Broadway from Revere Beach Parkway, north to Brown Circle			

SCITUATE	FRONT ST, SCITUATE, 01	027450	Annual	2-5
%Design:	25	PE		
Design Resp:	City	ROW		
Work Type:	Reconstruction	CON		3500
Description:	Intersection of First Parish Rd., Kent St. and Edward Foster Rd. to Beaver Dam Rd.			

SOMERVILLE	DAVIS SQ, SOMERVILLE, 01	018800	Annual	2-5
%Design:	0	PE		
Design Resp:	City	ROW		
Work Type:	Traffic	CON		850
Description:	Phase II Urban Systems improvements, Elm St., Holland St.			

STONEHAM	STONEHAM, RT-28, 02	131500	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Traffic	CON	1500	
Description:	Main St. (Rt. 28) from William St. to Marble St.			

WEYMOUTH	WEYMOUTH LANDING, 01	142120	Annual	2-5
%Design:	75	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON	750	
Description:	Reconstruction, minor widening, and signals			
Also Affects:	BRAINTREE			

Summary of INTERSTATE TRANSFER

26 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	7	19	26
Total	7	19	26

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	15234	67499	82733
Total	15234	67499	82733

FY85 TIP HIGHWAY ELEMENT

III.14 UNDETERMINED

FRAMINGHAM	RT-9, FRAMINGHAM, 04	124201	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	No entry	CON		400
Description:	Jug-handle design (First National Bank of Boston project)			

GLOUCESTER	GLOUCESTER AV BR, 01	028310	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Fencing	CON		0
Description:	Installation of anti-missile fence on bridge G-5-16 over railroad			

HAMILTON	HAMILTON, 3 LOC, 01	030450	Annual	2-5
%Design:	0	PE		
Design Resp:	Town	ROW		
Work Type:	Reconstruction	CON		900
Description:	Safety improvements on Bay Rd., Walnut Rd. and Railroad Ave.			

HANOVER	RT 53, HANOVER, 04	114800	Annual	2-5
%Design:	0	PE		
Design Resp:	State	ROW		
Work Type:	Reconstruction	CON		0
Description:	Washington St. (Rt. 53), widen and channelize in front of Hanover Mall (corridor planning study)			

Summary of UNDETERMINED

4 projects

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	0	4	4
Total	0	4	4

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	0	1300	1300
Total	0	1300	1300



FY85 TIP HIGHWAY ELEMENT

III.15 Highway Capital Program Summary

Federal Funds Available

NOTE: All figures are actually funds made available in FY84.  
FY85 is assumed to be equal.  
All figures are funds available statewide, except for  
Urban Systems and Interstate Transfer.

Funding Category	FY 85
Interstate	56337
Interstate Resurfacing (4R)	29821
Consolidated Primary	32031
Rural Secondary	6275
Urban Systems, City of Boston	2994
Urban Syst Boston Urbaniz Area	9393
Hwy Bridge Replacement and Rehab	29431
Consolidated Primary (RRR)	8008
Hazard Elimination	3986
RR/Hwy Crossings, Constr.	1161
RR/Hwy Crossings, Prot. Dev.	1161
Interstate Transfer	4748

FY85 TIP HIGHWAY ELEMENT  
Highway Capital Program Summary

Funding Category		ANNUAL	2-5	TOTAL
INTERSTATE 7 projects	: Cost : Items	30000 1	2443000 6	2473000 7
INTERSTATE RESURFACING (4R) 15 projects	: Cost : Items	16850 4	57625 11	74475 15
CONSOLIDATED PRIMARY 21 projects	: Cost : Items	19178 11	140075 10	159253 21
RURAL SECONDARY 3 projects	: Cost : Items	500 1	1300 2	1800 3
URBAN SYSTEMS CITY OF BOSTON 9 projects	: Cost : Items	5300 2	24500 7	29800 9
URBAN SYST BOSTON URBANIZ AREA 69 projects	: Cost : Items	20808 16	64943 53	85751 69
HWY BRIDGE REPLACEMENT AND REHAB: 86 projects	: Cost : Items	30050 17	128998 69	159048 86
CONSOLIDATED PRIMARY (RRR) 2 projects	: Cost : Items	4000 1	1700 1	5700 2
HAZARD ELIMINATION 5 projects	: Cost : Items	1800 2	403 3	2203 5
PAVEMENT MARKING PROGRAM 1 projects	: Cost : Items	0 0	125 1	125 1
RR/HWY CROSSINGS-CONST (ON FA) 1 projects	: Cost : Items	125 1	0 0	125 1
RR/HWY CROSSINGS-PROT DEV(ON FA): 1 projects	: Cost : Items	0 0	150 1	150 1
INTERSTATE TRANSFER 26 projects	: Cost : Items	15234 7	67499 19	82733 26
UNDETERMINED 4 projects	: Cost : Items	0 0	1300 4	1300 4
All funding categories 250 projects	: Cost : Items	143845 63	2931618 187	3075463 250

FY85 TIP HIGHWAY ELEMENT  
 Highway Capital Program Summary

Total highway projects: 250

Items:

	ANN.	2-5	TOT
PE	0	0	0
ROW	0	0	0
CON	63	187	250
Total	63	187	250

Costs:

	ANNUAL	2-5	TOTAL
PE	0	0	0
ROW	0	0	0
CON	143845	2931618	3075463
Total	143845	2931618	3075463





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## IV. APPENDIX

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### IV.1 ABBREVIATIONS AND ACRONYMS USED IN THE TIP

AC	Alternating current, the kind of electric power used in most domestic applications.
ATP	Areawide TOPICS Plan, intersection and local street improvements recommended by the Traffic Operations Program to Increase Capacity and Safety of the early 1970's.
B&M	Boston and Maine Railroad, operates commuter rail service under contract to the MBTA.
BTPR	Boston Transportation Planning Review, a study conducted over the period 1970-1972.
CPS	Corridor Planning Study identification and evaluation of alternative transportation improvements to meet previously identified needs.
CRIP	Commuter Rail Improvement Program, a major upgrading project included in this document.
CTPS	Central Transportation Planning Staff, the interagency staff responsible for a large part of the technical transportation planning work in the Boston Region.
DC	Direct current, the kind of electric power used by a subway car, streetcar, or trackless trolley.
DPW	Department of Public Works, usually referring to the Massachusetts Department of Public Works. (See MDPW).
E&H	Elderly and Handicapped
EIS	Environmental Impact Statement or Study
el	elevated, usually referring to an elevated transit structure
EOTC	Executive Office of Transportation and Construction. The state cabinet-level agency responsible for transportation.

FHWA Federal Highway Administration, the agency responsible for administering the federal highway grant programs.

FY Fiscal year. The federal fiscal year runs from October 1 to September 30, the state fiscal year from July 1 to June 30, and the MBTA fiscal year coincides with the calendar year. Fiscal year number refers to calendar year in which fiscal year ends. For example, federal fiscal year 1977, or FY77, ends on September 30, 1977.

Hz Hertz, or cycles per second. Measures the frequency of sound, or alternating electric current.

I-95 Interstate 95. One section of this route was planned to go through downtown Boston until plans were scrapped in 1972. The Orange Line relocation in the Southwest Corridor will use the right-of-way taken for this route.

JRTC Joint Regional Transportation Committee. An advisory committee to the major transportation agencies in the Boston region.

LRV Light Rail Vehicle. The new vehicles purchased to replace the trolley cars on the Green Line.

MAPC Metropolitan Area Planning Council. The agency responsible for comprehensive planning in the Boston region.

MBTA Massachusetts Bay Transportation Authority. The authority responsible for public transportation in the 79 cities and towns which make up the MBTA district.

MDPW Massachusetts Department of Public Works. The agency responsible for the construction and maintenance of highways in the state.

MPO Metropolitan Planning Organization. Six regional and state agencies which jointly conduct transportation planning for the Boston metropolitan area.

PA Public address. A system for communicating with passengers in stations and on trains through loudspeakers.

PCC A trolley car built to the standard designs and specifications established by the Electric Railway Presidents' Conference Committee during the 1930's and 40's. PCC cars are still in use on the Green Line.

PMT Program for Mass Transportation. May refer to either the 1966 or 1978 version.

PRC            Project Review Committee, MDPW

"3C"           Comprehensive, Continuing, Cooperative. Describes the transportation process required by federal law.

TIP            Transportation Improvement Program. A federally-required document which includes the short-range highway and transit programs.

TSM            Transportation System Management. An element of the transportation plan which describes plans to improve the effectiveness and efficiency of the highway and transit systems.

T.S. Ref;      Technical Supplemental reference. Used throughout this text to refer to relevant pages in the tech supplemental to PMT, published separately in three volumes.

UMTA           Urban Mass Transportation Administration. Agency responsible for administration of federal transit grant programs.

#### IV.2 LONG-RANGE HIGHWAY PROJECT PROPOSALS

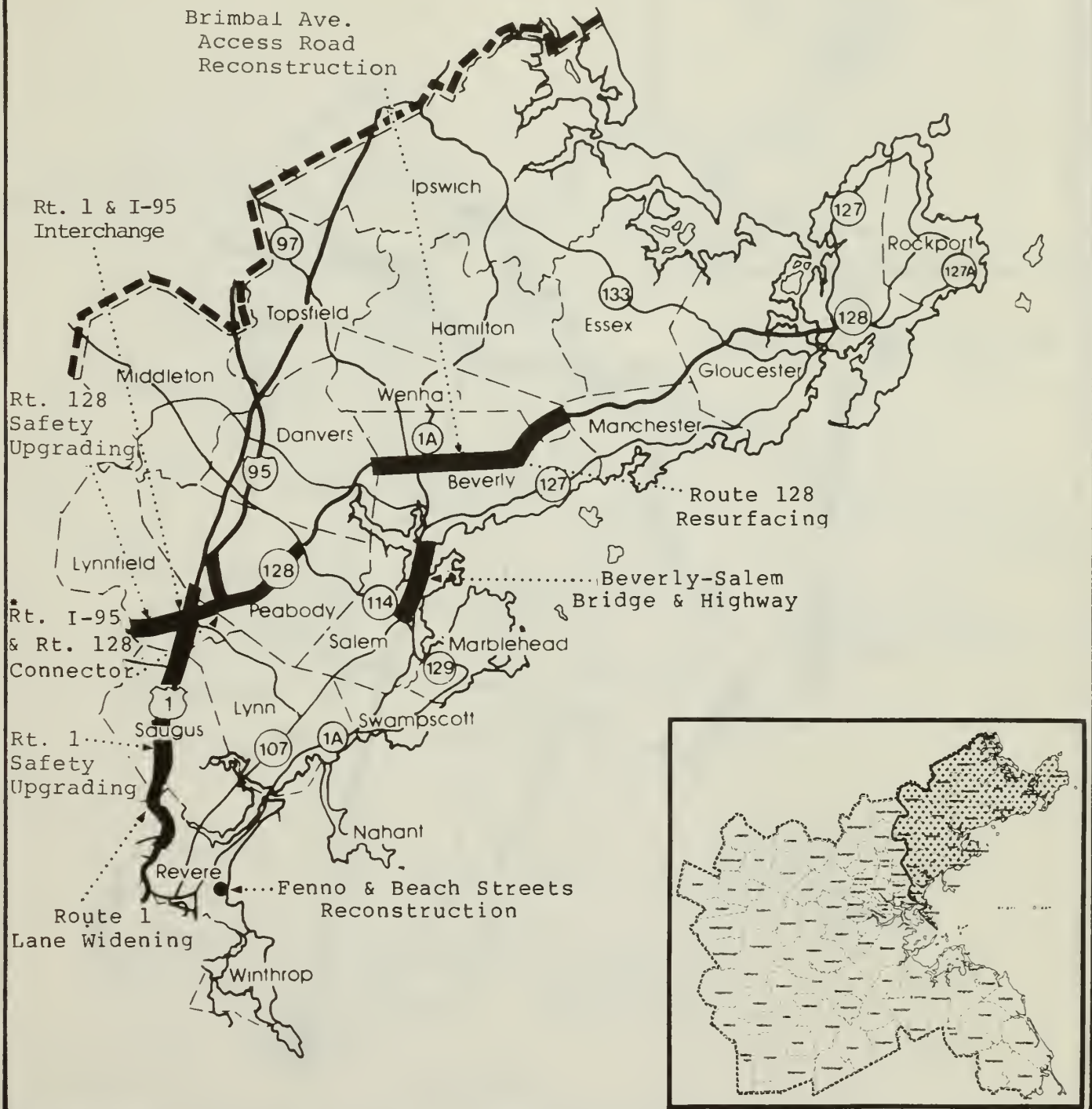
These projects are listed in the currently endorsed Transportation Plan for the Boston Region, February 1983, but are beyond the program scope of this document. They are listed here for informational purposes only. The Massachusetts Department of Public Works has not make a commitment to fund preliminary engineering or construction. The future of these projects is contingent upon availability of federal funds, community support, and environmental and design issues.

1. Salem-Peabody Connector, Peabody
2. Fore River Bridge, Quincy
3. Leverett Circle Connector, Boston
4. New Essex St/Dewey Sq. Boston

#### IV.3 GRAPHICS OF MAJOR PROJECTS

The following figures show the locations of highway projects which cost more than \$3,000,000. Major MBTA rapid transit service expansions and the commuter rail system are also shown.





## MAJOR HIGHWAY IMPROVEMENTS\*

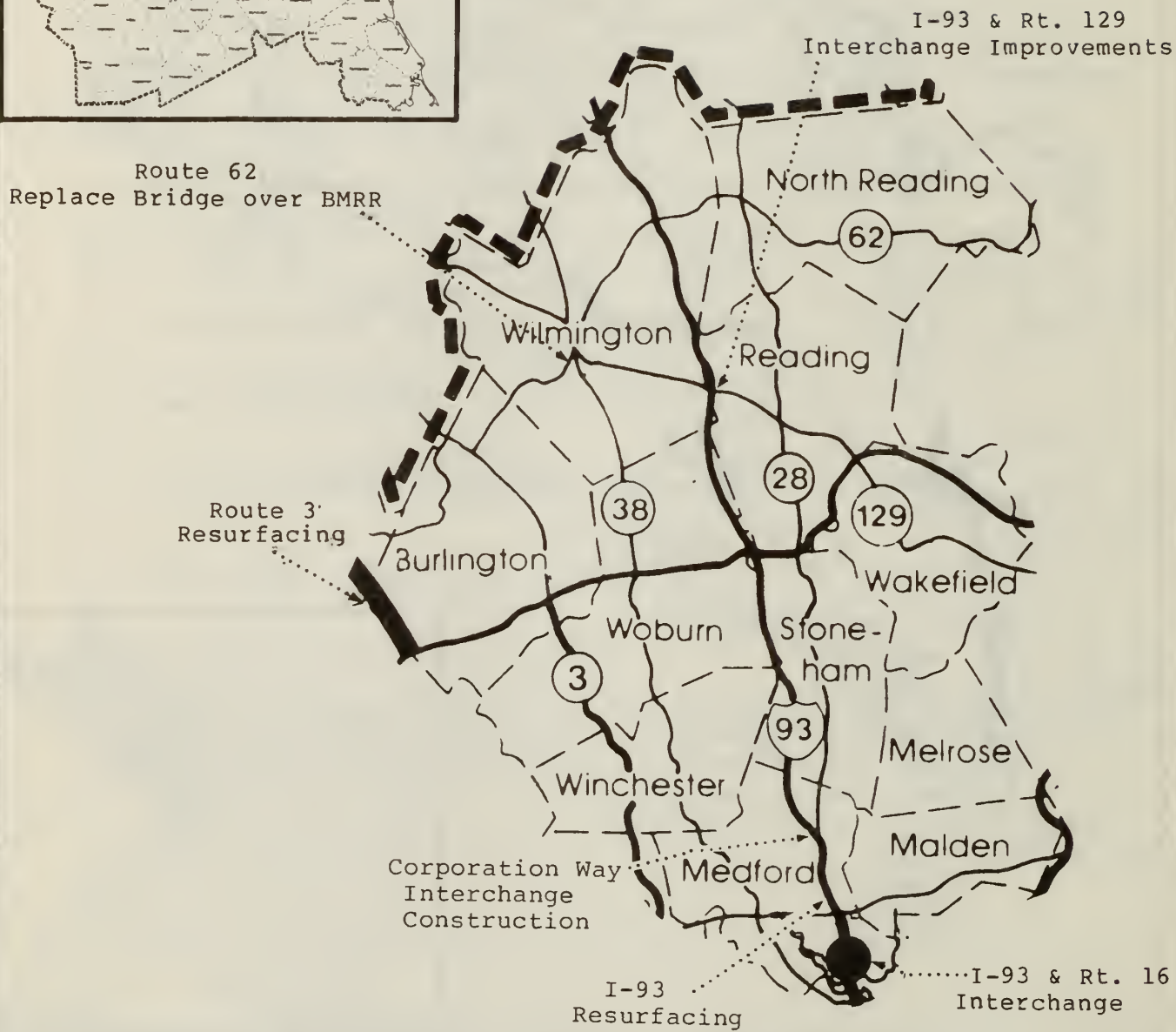
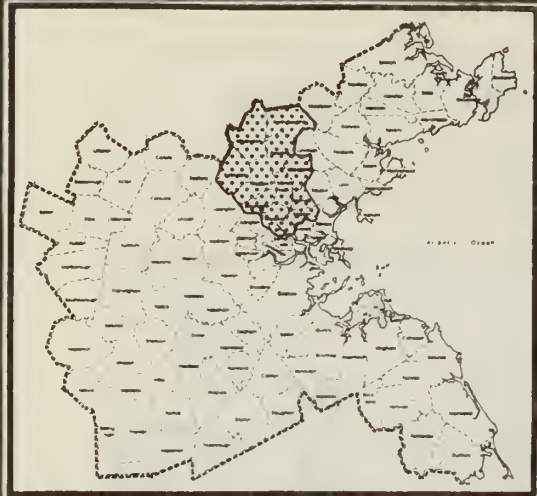
- 95— Interstate
- 1— U.S. Routes
- (9)— State Routes
- MAPC boundary

\* Projects over  
\$3,000,000

## North Shore

DECEMBER 1984 MAPC

FIGURE 1



## MAJOR HIGHWAY IMPROVEMENTS\*

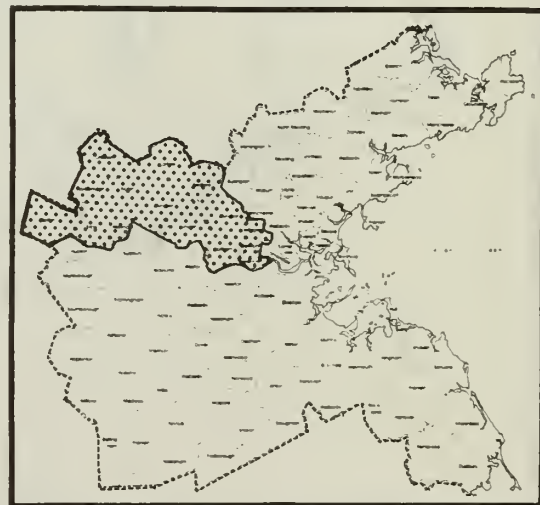
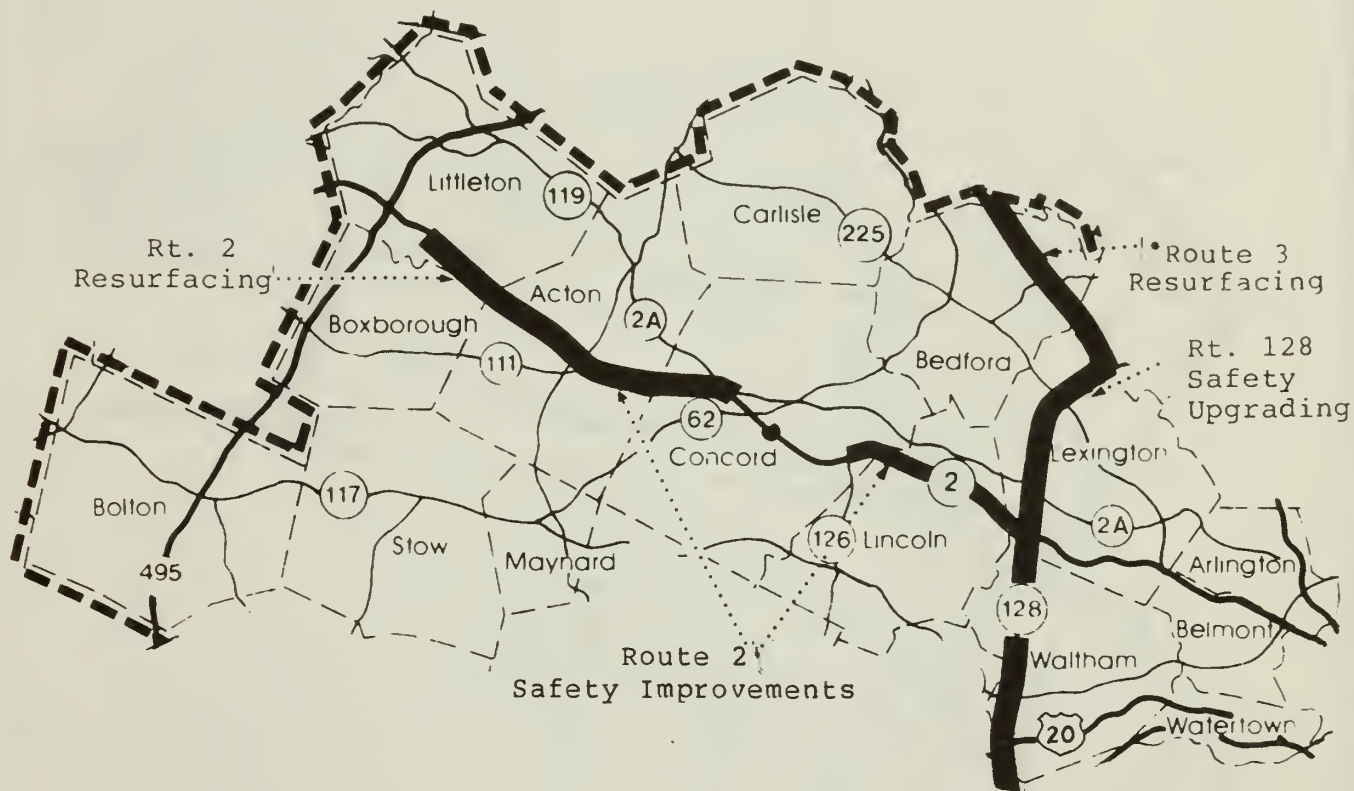
North

- 95— Interstate
- 1— U.S. Routes
- 9— State Routes
- MAPC boundary

\* Projects over \$3,000,000

DECEMBER 1984 MAPC

FIGURE 2



## MAJOR HIGHWAY IMPROVEMENTS\*

- 95— Interstate
- 1— U.S. Routes
- 9— State Routes
- MAPC boundary

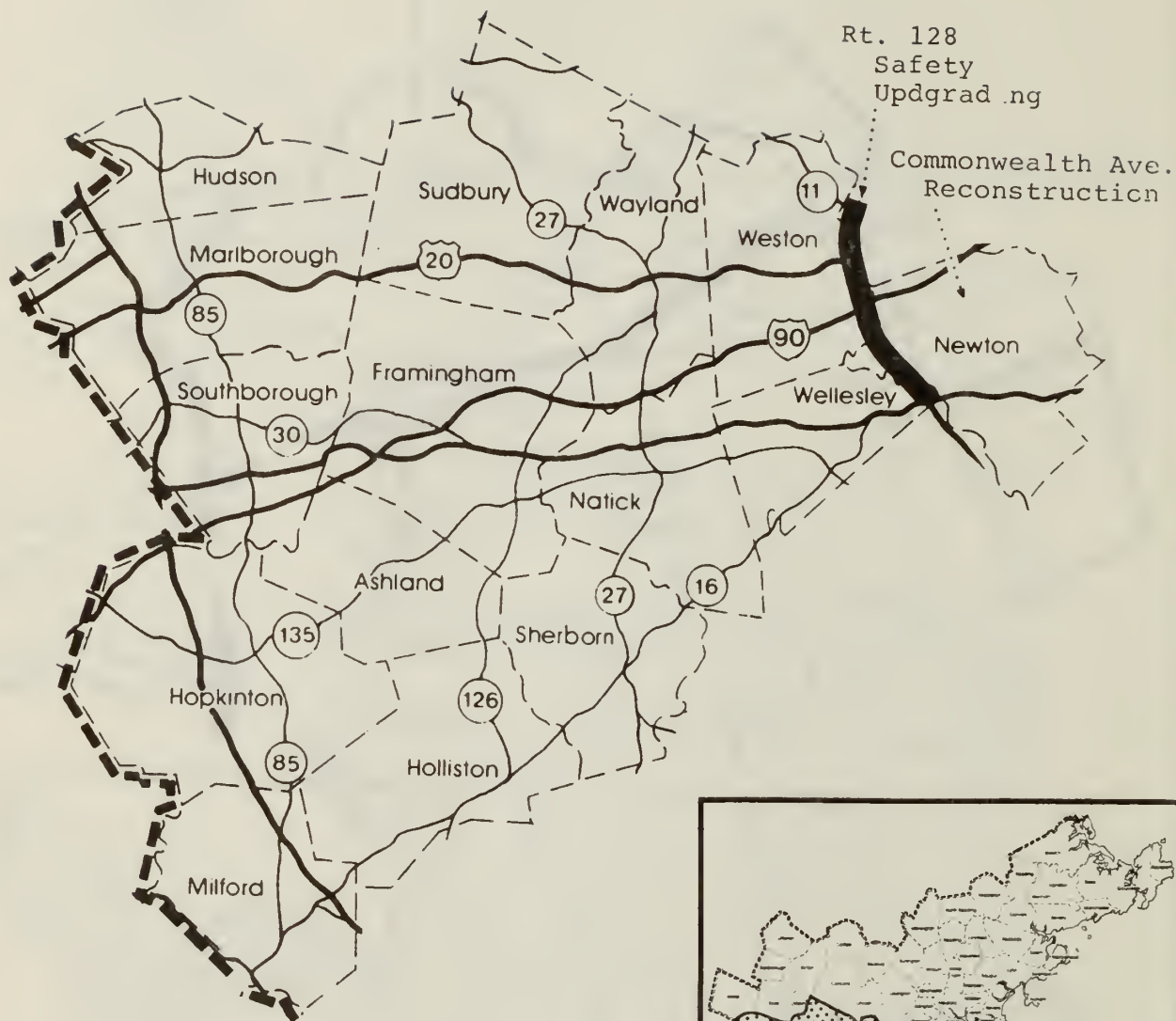
\* Projects over  
\$3,000,000

**Northwest**

DECEMBER 1984/MAPC

FIGURE 3





## MAJOR HIGHWAY IMPROVEMENTS\*

West

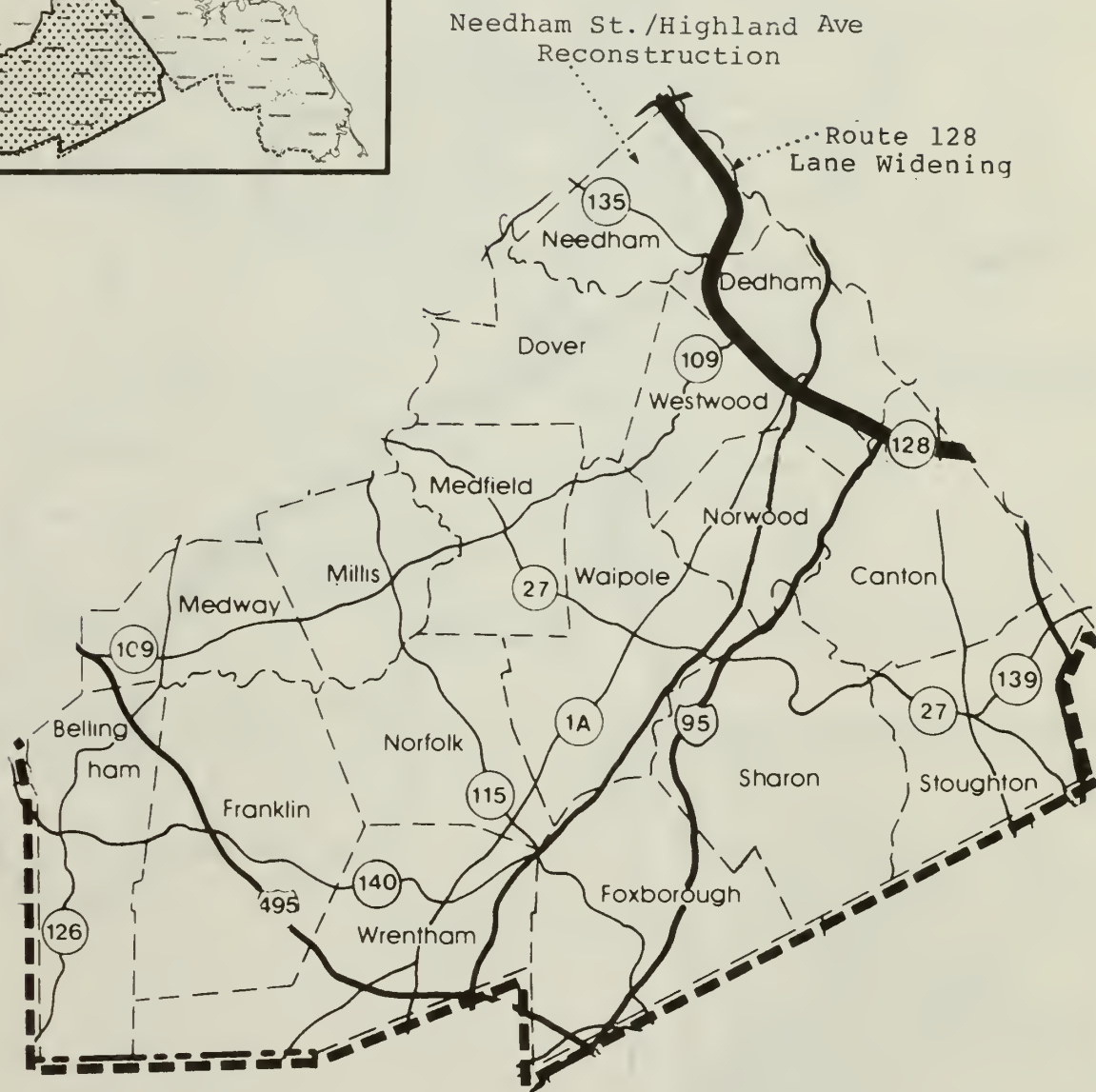
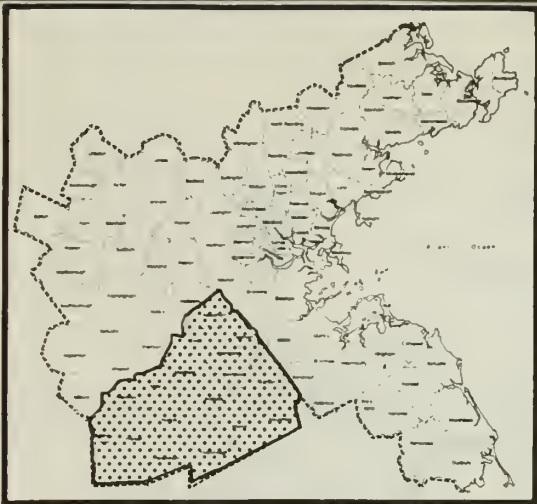
- 95— Interstate
- 1— U.S. Routes
- 9— State Routes
- MAPC boundary

\* Projects over  
\$3,000,000

DECEMBER 1984 MAPC

FIGURE 4





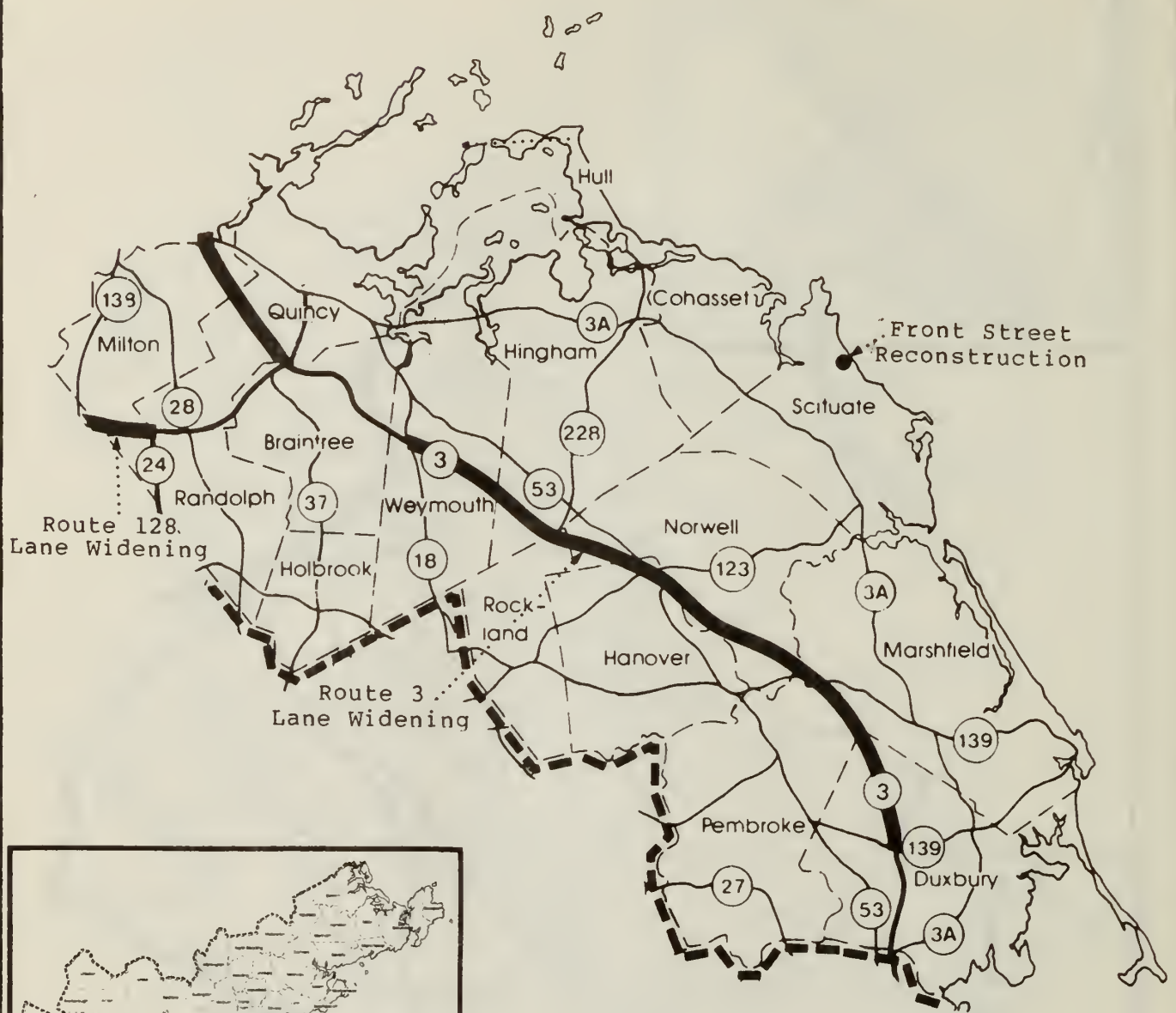
## MAJOR HIGHWAY IMPROVEMENTS\*

Southwest

- 95— Interstate
- 1— U.S. Routes
- 9— State Routes
- MAPC boundary

\* Projects over  
\$3,000,000

September 1983 MAPC



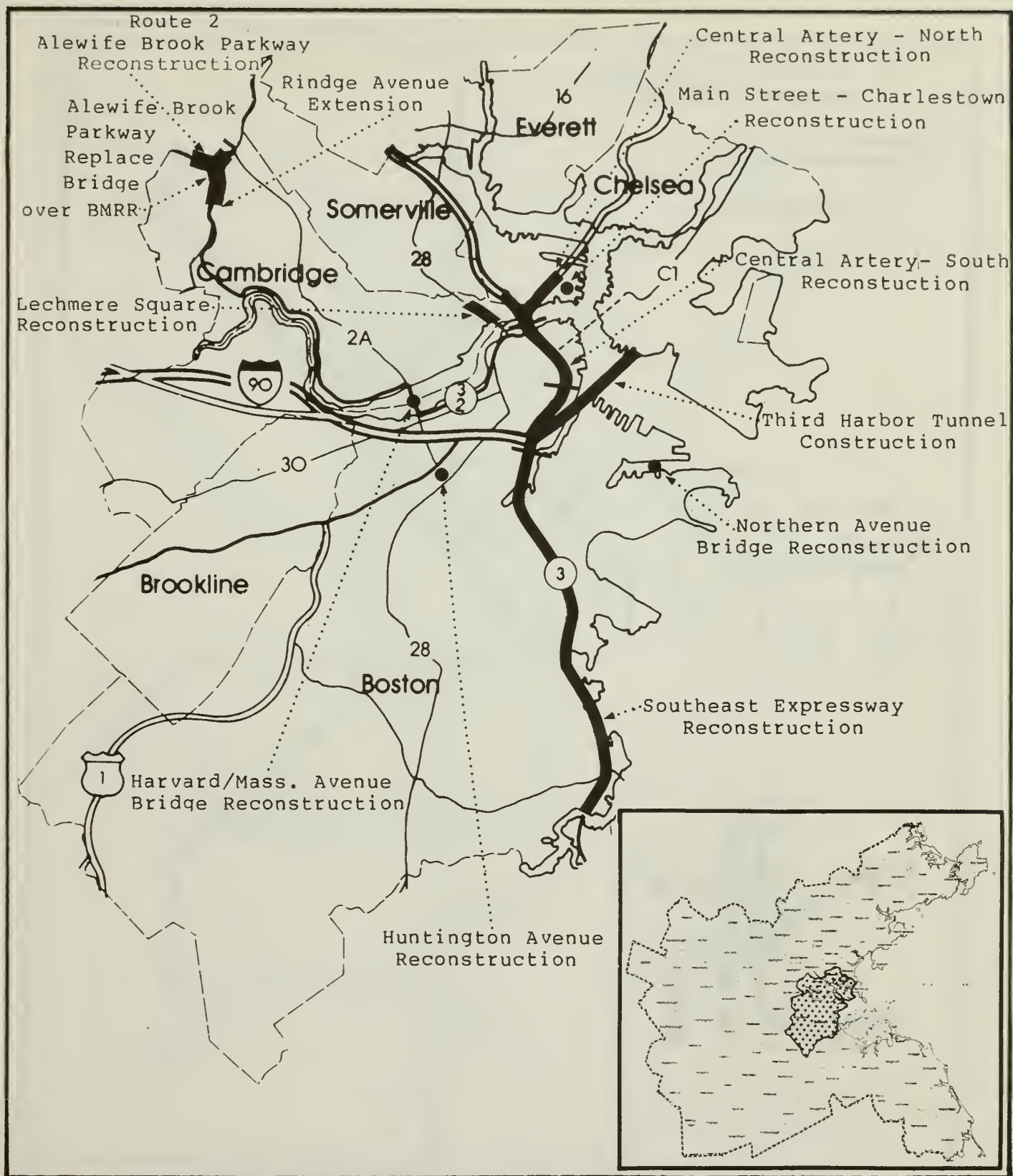
## MAJOR HIGHWAY IMPROVEMENTS\*

- 95— Interstate
- 1— U.S. Routes
- 9— State Routes
- MAPC boundary

\* Projects over  
\$3,000,000

November 1981 MAPC

South Shore



## MAJOR HIGHWAY IMPROVEMENTS\*

- 95— Interstate
- 1— U.S. Routes
- 9— State Routes
- MAPC boundary

\* Projects over \$3,000,000

Core

DECEMBER 1984 MAPC

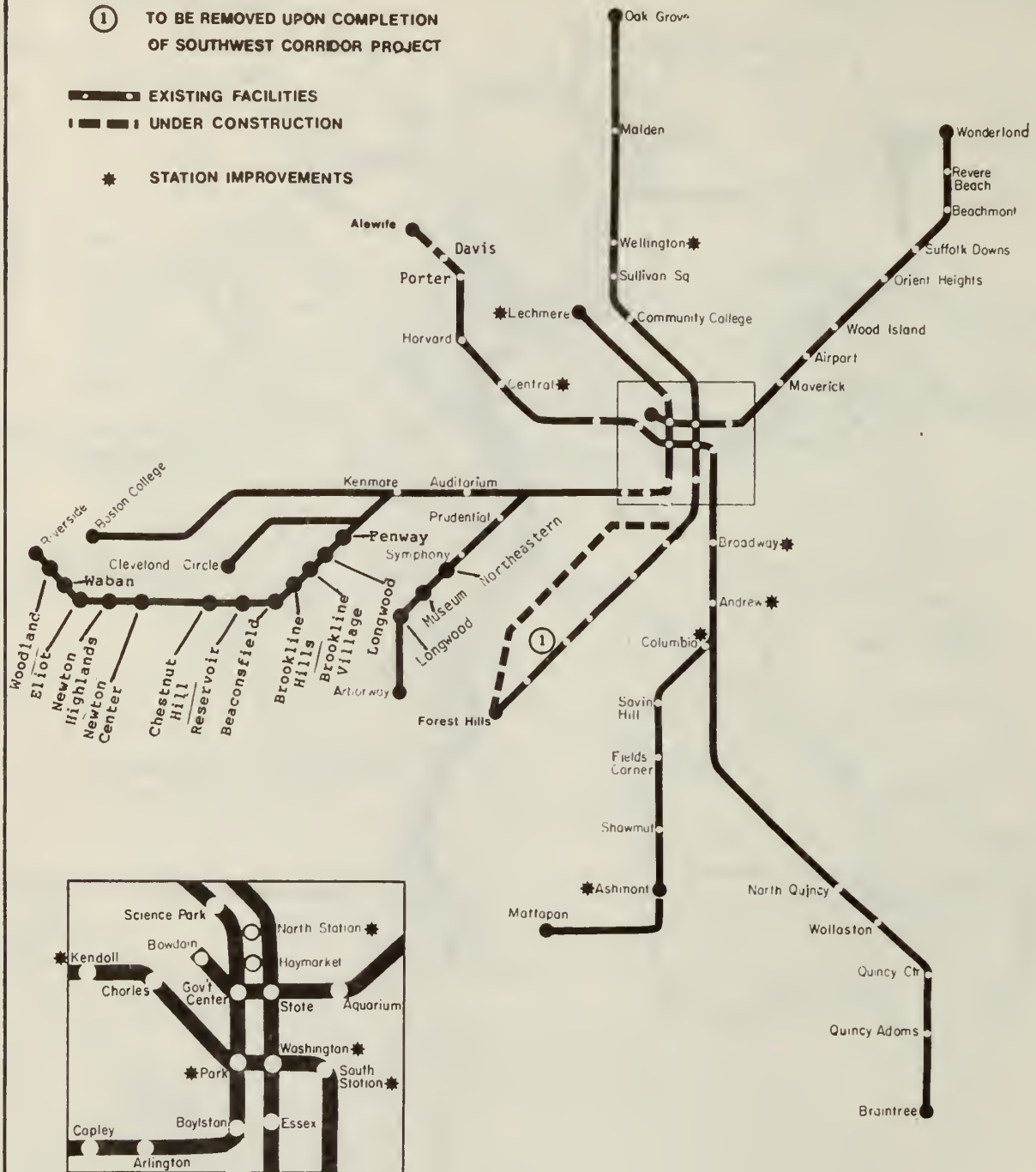


① TO BE REMOVED UPON COMPLETION  
OF SOUTHWEST CORRIDOR PROJECT

● —●— EXISTING FACILITIES

■ —■— UNDER CONSTRUCTION

\* STATION IMPROVEMENTS

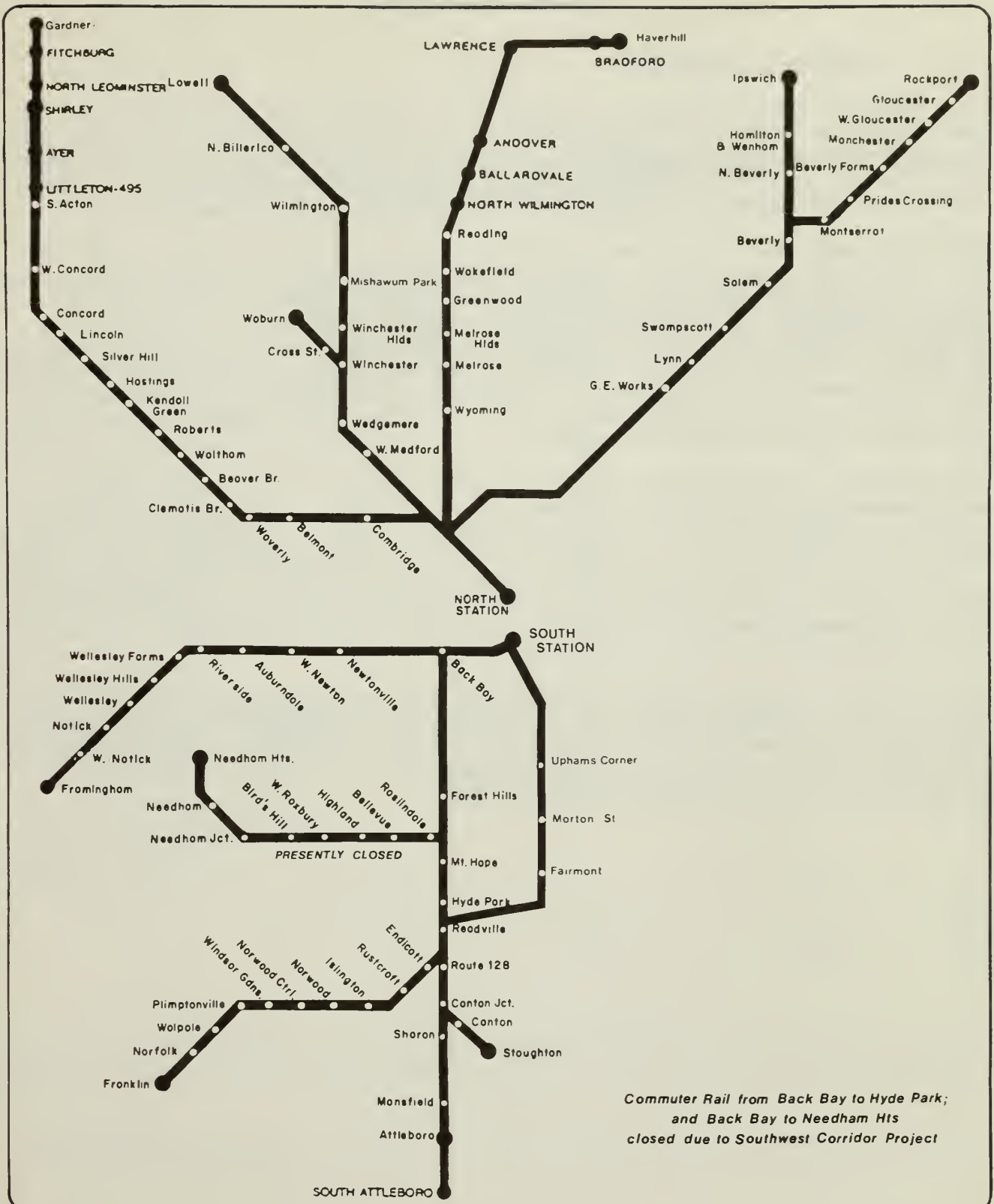


## MBTA RAPID TRANSIT IMPROVEMENTS

### Major TIP Service Expansions

FIGURE 8





1983 Commuter Rail Network

FIGURE 9

IV.4 AIR QUALITY ANALYSIS

The following summarizes the results of the Air Quality Analysis performed on Highway projects listed in the Annual Element of the 1985 Transportation Improvement Program (TIP). The analysis is undertaken in response to the 1977 Clean Air Act and its amendments and to fulfill the State Implementation Plan (SIP) consistency requirements.

Projects analyzed are those which are due for construction in FY '85 and which are expected to change considerably vehicle speed and roadway or intersection capacity. Such projects are signal installations, signal updates, or coordination and roadway widenings. Resurfacing projects, safety projects (guardrails, hydrocell maintenance, warning signals, etc.) are considered as having No Impact (NI) on air quality. For the same reason, projects at the PE (Preliminary Engineering) or ROW (Right-of-Way acquisition) stage, although they qualify for federal funding, are not analyzed either.

The analysis is performed for the implementation year (1985) and attainment year (1987); for both points in time, the impacts of the Inspection and Maintenance Program are included. The amount of NMHC emitted is calculated in kg/day for the No Build and Build case. Table 1 summarizes all the projects in the Annual Element by funding category and classifies them according to their status for air quality work. Table 2 summarizes the net change for each funding category for both the implementation and attainment years.

Data for the analysis were provided by the Massachusetts Department of Public Works (MDPW) under the energetic and concerned coordination of Mr. Robert Patneaude. The general guidelines for the analysis and the emission factors were the responsibility of the Department of Environmental Quality Engineering (DEQE).

TABLE 1

1985-1989 TRANSPORTATION IMPROVEMENT PROGRAM  
HIGHWAY ANNUAL ELEMENT  
PROJECT CLASSIFICATION FOR AIR QUALITY ANALYSIS

<u>Funding Category</u>	<u>Analyzed in FY'84 or Previous FY TIP's</u>	<u>Intuitively No Impact</u>	<u>Projects &amp; (Intersections) Analyzed in FY'85 TIP</u>	<u>Total Number of Projects</u>
Interstate	1	-	-	1
Interstate Resurfacing(4R)	-	3	1 (1)	4
Consolidated Primary	2	9	-	11
Rural Secondary	1	-	-	1
Urban Systems				
o City of Boston	-	-	1 (3)	*2
o Boston Urbanized Area	11	-	5 (31)	16
Bridge Replacement and Rehabilitation	-	11	-	11
Consolidated Primary (3R)	-	1	-	1
Hazard Elimination	1	-	1 (1)	2
Other Federal Aid				
o Safer-off System Road	-	-	-	0
o Rail-Highway Crossing Construction	1	-	-	1
o Rail-Highway Crossing Protective Devices	-	-	-	0
o Emergency Road Relief	-	-	-	0
o Other Federal Aid	-	-	-	0
Interstate Transfer	6	-	1 (6)	7
 TOTAL	 23	 24	 9 (42)	 57

A total of forty-two intersections were analyzed. The analysis is prepared for the program year (1985) and 1987, for the No Build and Build alternatives.

\* The analysis for one project has been deferred until a full design submission is made.

TABLE 2

1985-1989 TRANSPORTATION IMPROVEMENT PROGRAM  
HIGHWAY ANNUAL ELEMENT  
SUMMARY OF AIR QUALITY CHANGES

<u>Funding Category</u>	<u>Total Number of Projects</u>	<u>Net Changes in Emissions of NMHC (in Kg/day)</u>	
		<u>1985</u>	<u>1987</u>
Interstate	1	+370.0	+190.0
Interstate Resurfacing(4R)	4	+4.5	+5.1
Consolidated Primary	11	-1.7	-1.5
Rural Secondary	1	NI	NI
Urban Systems			
o City of Boston	*2	-.45	-.38
o Boston Urbanized Area	16	-42.16	-42.49
Bridge Replacement and Rehabilitation	11	NI	NI
Consolidated Primary (3R)	1	NI	NI
Hazard Elimination	2	-1.98	-2.19
Other Federal Aid			
o Safer-off System Road	0	-	-
o Rail-Highway Crossing Construction	1	-.04	-.03
o Rail-Highway Crossing Protective Devices	0	-	-
o Emergency Road Relief	0	-	-
o Other Federal Aid	0	-	-
Interstate Transfer	7	-520.24	-327.52
 TOTAL	 57	 -192.07	 -179.01

A total of forty-two intersections were analyzed. The analysis is prepared for the program year (1985) and 1987, for the No Build and Build alternatives.

\* The analysis for one project has been deferred until a full design submission is made.



FY85 TIP APPENDIX

AIR QUALITY ANALYSIS FOR THE FY85 TIP HIGHWAY ELEMENT

III.1 INTERSTATE

PEABODY		RT 195,PEABODY,01		074200		CHANGE IN NMHC	
% Design:		0%				(in Kg/day)	
Design Resp:		State				1985	1987
Work Type:		Construction				+370.0*	+190.0*
Description:		Reconstruction of Rt-I-95/Rt-128 interchange in Peabody, Task A, Contract II					
Also Affects:		LYNNFIELD					
The project was first analyzed in the F.Y. 1983 June Amendments to the T.I.P.							

III.2 INTERSTATE RESURFACING (4R)

CANTON	RT I-93,CANTON,03	071452	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	No entry			
Description:	Replace exit signs from Canton I-95 interchange north to N. H. state line			
Also Affects:	BOSTON METHUEN MEDFORD WILMINGTON QUINCY			

DANVERS	RT I95,DANVERS,01	073600	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Reconstruction			
Description:	Ramp J, Rt-1 NB to Rt-I-95 NB, Sta. 0+00 to Sta. 5+00 (J), Ramp K			

MEDFORD	RT 193,MEDFORD,01	071500	CHANGE IN NMHC	
%Design:	25		(in Kg/day)	
Design Resp:	State		1985	1987
Work Type:	Construction		+4.5*	+5.1*
Description:	I-93 ramps at Mystic Valley Parkway (Rt 16), provide 2 missing ramps			
* Analysis is based on Table 8 of the Draft Negative Declaration, 1978 (USDOT,FHWA,MDPW)				

SOMERVILLE	RT I93,SOMERVILLE,03	072100	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	State		NI	NI
Work Type:	Other			
Description:	Noise barriers at Ten Hills housing area			

## III.3 CONSOLIDATED PRIMARY

BEVERLY	RT 128, BEVERLY, 01	086880	CHANGE IN NMHC (in Kg/day)	
%Design:	80		1985	1987
Design Resp:	State		NI	NI
Work Type:	Resurfacing			
Description:	Resurfacing from Brimbal Ave. north to Manchester town line			
Also Affects:	WENHAM			

BRAINTREE	RT 3, BRAINTREE, 07	108401	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Landscape			
Description:	Landscaping NB roadway of Rt 3 (2nd stage)			
Also Affects:	QUINCY			

BURLINGTON	RT-3, BURLINGTON, 03	108503	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Resurfacing			
Description:	Resurfacing from Rt I-95/128 in Burlington, north to Treble Cove Rd., Billerica			
Also Affects:	BEDFORD BILLERICA			

CONCORD	RT-2, CONCORD, 03	096904	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Resurfacing			
Description:	Resurfacing from 1 mile west of Newton Rd., Littleton, east to Concord rotary			
Also Affects:	LITTLETON ACTON BOXBOROUGH			

DUXBURY	RT 3A, DUXBURY, 02	109910	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Resurfacing			
Description:	Resurfacing Rt 3A from Marshfield town line to Kingston town line			

FRAMINGHAM	RT 30,FRAMINGHAM,03	110951	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	State		NI	NI
Work Type:	Reconstruction			
Description:	Reconstruct Cochituate Rd (Rt-30) from Burger King to the Mass Pike interchange			

HINGHAM	RT 3A,HINGHAM,03	110060	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		-3.2 *	-2.4*
Work Type:	Reconstruction			
Description:	Reconstruct Lincoln St. (Rt-3A) from Back River to Fottler Rd., remove bridge H-15-11, Beal St. extension			

\* Project was first analyzed in the F.Y. 1984 T.I.P.

LITTLETON	RT-2,HARVARD,02	097403	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Resurfacing			
Description:	Resurfacing from Rt-110 in Harvard east to Rt-I-495, Littleton			
Also Affects:	HARVARD			

MEDWAY	RT 109,MEDWAY,01	079800	CHANGE IN NMHC (in Kg/day)	
%Design:	30		1985	1987
Design Resp:	State		NI	NI
Work Type:	Reconstruction			
Description:	Reconstruct Rt-109, from Farm St. in Millis to Coffee St. in Medway (Proj.#1)			
Also Affects:	MEDWAY MILLIS			

MILFORD	RT 109,MILFORD,02	079801	CHANGE IN NMHC (in Kg/day)	
%Design:	25		1985	1987
Design Resp:	State		NI	NI
Work Type:	Reconstruction			
Description:	Reconstruct Rt-109 in Milford from Birch St. to I-495 (Proj. #2)			

PEABODY	LOWELL ST,PEABODY,01	040540	CHANGE IN NMHC (in Kg/day)	
%Design:	35		1985	1987
Design Resp:	State		*	*
Work Type:	No entry			
Description:	Reconstruction of Lowell St. ramps at Rt-128, Peabody, Task A, Contract III-A			

\* Project was originally included in the Forest Street, Peabody project (I.D. 026610) and was included in the F.Y.1984 T.I.P. It is now included in the I-95, Peabody Project (I.D.074200) listed on Page 4.

### III.4 RURAL SECONDARY

TOPSFIELD	MAIN ST, TOPSFIELD, 01	042280	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	Town		NI *	NI *
Work Type:	Reconstruction			
Description:	Reconstruct Main St. from High to Prospect			

\* This project was analyzed in the F.Y. 1983 T.I.P.

### III.5 URBAN SYSTEMS CITY OF BOSTON

BOSTON	DUDLEY ST EXT, BOSTON, 01	021300	CHANGE IN NMHC (in Kg/day)	
%Design:	25		1985	1987
Design Resp:	State		- .45	- .38
Work Type:	Reconstruction			
Description:	New Dudley St. from Roxbury St. to Washington St. (in conjunction with Phase I Terminal, BRA)			

\* Analysis based on 25% submission with supplementary information provided.

BOSTON	BOSTON PEDEST SIGNALS, 01	006800	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	City		*	*
Work Type:	Traffic			
Description:	Conversion of 48 pedestrian signals to comply with national codes (BRA)			

\* Safety improvements with some project locations still to be identified. Analysis is being deferred until upcoming submission.

### III.6 URBAN SYSTEMS BOSTON URBANIZED AREA

ARLINGTON	ARLINGTON, MASS. AVE., 01	002100	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	Town		-2.47	-2.01
Work Type:	Traffic			
Description:	ATP #1, Project 81, 14 locations along Mass Ave., Mystic St., Medford St. (Arlington Center area)			



ASHLAND	ASHLAND, 5 LOCATIONS, 01	002400	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	Town		-1.7*	-1.5*
Work Type:	Traffic			
Description:	6 locations, ATP #1, LOC #1, 2, 3, 4, 7+8 -W. Union St., Summer St., Cherry St.			

\* The project was first analyzed in the F.Y. 1984 February Amendments to the T.I.P.

BROOKLINE	BROOKLINE, 6 LOCATIONS, 01	009400	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		+11.26	+9.76
Work Type:	Traffic			
Description:	Project 65, 5 locations on Rt. 9 between Reservoir Rd. and Cypress St.			

BURLINGTON	MIDDLESEX TPK, BURLING, 01	046600	CHANGE IN NMHC (in Kg/day)	
%Design:	100		1985	1987
Design Resp:	State		-7.4*	-4.6*
Work Type:	Reconstruction			
Description:	Reconstruction and widening of Middlesex Tnpk., Lexington St. to south of Adams St.			

\* The project was first analyzed in the F.Y. 1983 T.I.P., February Amendments.

EVERETT	RT 99, EVERETT, 01	125800	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	State		-6.1*	-4.9*
Work Type:	Widening			
Description:	Broadway (Rt. 99), from Boston city line to Bartlet St.			
Also Affects:	BOSTON			

\* The project was first analyzed in the F.Y. 1982 T.I.P.

HINGHAM	HINGHAM, 9 LOCATIONS, 01	032700	CHANGE IN NMHC (in Kg/day)	
%Design:	95		1985	1987
Design Resp:	State		-3.8 *	-5.1 *
Work Type:	Traffic			
Description:	Rt. 3A at North St. and Water St., Rt. 3A at Summer and Green Sts., Rt. 53 at Gardner and Derby			

\* The project was first analyzed in the F.Y. 1982 T.I.P.

HOLBROOK	HOLBROOK,5 LOC,01	033000	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	State		-0.5*	-0.5*
Work Type:	Traffic			
Description:	5 locations, South St. at Spring, Rt. 37 at Quincy, South St., Tech. Park Drive, etc.			

\* The project was first analyzed in the F.Y. 1982 T.I.P.

MELROSE	MELROSE,SYLVAN ST,01	045252	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		-3.87	-2.10
Work Type:	Reconstruction			
Description:	Reconstruction, widening and realignment of Sylvan St.			

MELROSE	MELROSE,TREMONT ST,01	045253	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		-.026	-.035
Work Type:	Reconstruction			
Description:	Reconstruction, widening and realignment of Tremont St.			

NORWOOD	NAHATAN ST,NORWOOD,03	049921	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	Town		-4.36	-3.51
Work Type:	No entry			
Description:	Reconstruct Nahatan St. from Pleasant St. to Washington St.			

PEABODY	PEABODY,CBD STS,01	056055	CHANGE IN NMHC (in Kg/day)	
%Design:	100		1985	1987
Design Resp:	City		-7.7*	-6.4*
Work Type:	Reconstruction			
Description:	Contract 'A', Walnut and Washington Sts.			

\* The project was first analyzed in the F.Y. 1983 T.I.P.

PEABODY	PEABODY,CBD STS,02	056056	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	City		*	*
Work Type:	Reconstruction			
Description:	Contract 'B', Central, Lowell Sts. and Peabody Square			

\* The project's impacts are included in project 056055 above.

SHARON	SHARON, 4 LOCATIONS, 01	128800	CHANGE IN NMHC (in Kg/day)	
%Design:	80		1985	1987
Design Resp:	State		-1.2*	-1.3*
Work Type:	Traffic			
Description:	4 locations, N. Main St. / S. Main / / P St (Post Office Square)		Depot	Billings

\* The project was first analyzed in the F.Y. 1984 February  
Amendments to the T.I.P.

WALTHAM	RT 20, WALTHAM, 05	101203	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	City		-3.2*	-1.8*
Work Type:	Reconstruction			
Description:	Replacement 2-level parking deck, including signals, circulation and roadway improvements			

\*The project was first analyzed in the F.Y. 1984, February  
Amendments to the T.I.P.

WALTHAM	RT-20, WALTHAM, 04	101202	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	Town		*	*
Work Type:	Reconstruction			
Description:	Reconstruct Main and School Sts. between Liberty and Spring (Central Square Project)			

\* This project's impacts are included in project 101203 above.

WOBURN	MISHAWUM RD, WOBURN, 03	047902	CHANGE IN NMHC (in Kg/day)	
%Design:	100		1985	1987
Design Resp:	City		-11.1*	-18.5*
Work Type:	Reconstruction			
Description:	Reconstruct intersection of Mishawum Rd., Commerce Way, and Rt. 128 SB ramps			

\* The project was first analyzed in the F.Y. 1983 T.I.P.

### III.7 HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION

BELLINGHAM	MAPLE ST, BELLINGHAM, 01	043280	CHANGE IN NMHC (in Kg/day)	
%Design:	20		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Reconstruct bridge #B-6-8 over CONRAIL on Maple St.			

BOSTON	BOSTON ST,BOSTON,02	006902	CHANGE IN NMHC (in Kg/day)	
%Design:	10		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Reconstruct bridge deck B-16-266 over	S.E. Expressway		

BOSTON	CANTERBURY ST,BOSTON,01	011100	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		NI *	NI *
Work Type:	Bridge reconstruction			
Description:	Bridge B-16-107 over CONRAIL Hyde Park			

\* The project was first included in the F.Y. 1984 T.I.P.

BOSTON	NORFOLK ST,BOSTON,01	051700	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Bridge B-16-162 over CONRAIL, Dorchester			

BOSTON	WEST ST,BOSTON,01	140800	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		NI *	NI *
Work Type:	Bridge reconstruction			
Description:	Bridge B-16-108 over CONRAIL and Providence St., Hyde Park			

\* The project was first included in the F.Y. 1984 T.I.P.

CAMBRIDGE	LECHMERE,PHASE II,CAMB,2	037820	CHANGE IN NMHC (in Kg/day)	
%Design:	95		1985	1987
Design Resp:	City		NI	NI
Work Type:	Bridge reconstruction			
Description:	Reconstruct Lechemere Canal Bridge (C-1-1) and approaches			

CAMBRIDGE	RT 2A,CAMBRIDGE,01	098500	CHANGE IN NMHC (in Kg/day)	
%Design:	100		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Bridge C-1-12 Mass. Ave. over B and M RR, Fitchburg Line (Porter Sq.)			



CANTON	CHAPMAN ST,CANTON,01	013500	CHANGE IN NMHC (in Kg/day)	
%Design:	10		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Bridge C-2-9 over CONRAIL			

CHELSEA	BROADWAY,CHELSEA,01	008250	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Bridge C-9-2, Broadway over MBTA / B and M RR			

HULL	GEO.WASH BLVD,HULL,01	027800	CHANGE IN NMHC (in Kg/day)	
%Design:	15		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Bridge H-15-8=H-26-1 over Weir River Hingham - Hull (repairs)			
Also Affects:	HINGHAM			

NORFOLK	MAIN ST,NORFOLK,01	042100	CHANGE IN NMHC (in Kg/day)	
%Design:	25		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Bridge N-13-3 over Franklin Branch of CONRAIL			

NORFOLK	PARK ST,NORFOLK,01	055810	CHANGE IN NMHC (in Kg/day)	
%Design:	25		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Replace bridge N-13-2, Park St. over MBTA / CONRAIL			

SALEM	BEVERLY-SALEM PROJ.,01	005402	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge construction			
Description:	Contract 1, Bridge St. Bypass, From Saunder St. to south of Bridge St. Connector			

SOMERVILLE	BEACON ST,SOMERVIL,01	004350	CHANGE IN NMHC (in Kg/day)	
%Design:	25		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Replace bridge S-17-19 over B and M RR and MBTA			

SOMERVILLE	LOWELL ST,SOMERVILLE,01	040550	CHANGE IN NMHC (in Kg/day)	
%Design:	25		1985	1987
Design Resp:	State		NI	NI
Work Type:	Bridge reconstruction			
Description:	Reconstruct bridges S-17-11 and S-17-15 over MBTA and B and M RR			

WALPOLE	KENDALL ST,WALPOLE,01	036150	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	State		NI *	NI *
Work Type:	Bridge reconstruction			
Description:	Replace bridge W-3-12 Kendall St. over MBTA			

\* The project was first included in the F.Y. 1984 T.I.P.

WALPOLE	MYLOD ST,WALPOLE,01	049051	CHANGE IN NMHC (in Kg/day)	
%Design:	90		1985	1987
Design Resp:	State		NI *	NI *
Work Type:	Bridge reconstruction			
Description:	Reconstruct bridge W-3-10 (Mylod St.) over MBTA and CONRAIL			

\* The project was included in the F.Y. 1984 T.I.P.

### III.8 CONSOLIDATED PRIMARY (RRR)

DANVERS	RT 128,DANVERS,03	087010	CHANGE IN NMHC (in Kg/day)	
%Design:	0		1985	1987
Design Resp:	State		NI	NI
Work Type:	Resurfacing			
Description:	From NE of Elliot St., Danvers at Danvers / Beverly line to east of Brimbal Ave., Beverly			
Also Affects:	BEVERLY			

### III.9 HAZARD ELIMINATION

PEABODY	RT 114,PEABODY,03	082000	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		-0.9*	-0.7*
Work Type:	Reconstruction			
Description:	Reconstruction and widening, Rt. 1 ramps in Danvers to Rt. 128 in Peabody			
Also Affects:	DANVERS MIDDLETON			

\* The project was first analyzed in the F.Y. 1984 T.I.P., February Amendments.

READING	RT 28,READING,01	107310	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	Town		-1.08	-1.49
Work Type:	Traffic			
Description:	Traffic control signal at intersection of Rt. 28 (Main St.) and South St.			

### III.10 PAVEMENT MARKING PROGRAM

No Projects are in the annual element,

### III.11 RAIL-HIGHWAY CROSSINGS-CONSTRUCTION (ON FEDERAL-AID SYSTEM)

WAKEFIELD	FOREST ST,WAKEFIELD,01	026620	CHANGE IN NMHC (in Kg/day)	
%Design:	25		1985	1987
Design Resp:	State		-0.04*	-0.03*
Work Type:	Traffic			
Description:	Traffic signal at Forest and Main Streets			

\* The project was first analyzed in the F.Y. 1984 T.I.P., February Amendments.

### III.12 RAIL-HIGHWAY CROSSINGS-PROTECTIVE DEVICES (ON FEDERAL-AID SYSTEM)

No projects are in the annual element.

### III.13 INTERSTATE TRANSFER

BOSTON	MAIN ST,CHARLESTOWN,01	041600	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	City		NI *	NI *
Work Type:	Reconstruction			
Description:	Reconstruction of Main St. from City Square to Sullivan Square (BRA)			

\* The project was analyzed in the F.Y. 1983 T.I.P., June Amendments.

BOSTON	TRAF CONTR SYS,BOSTON,01	134220	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	State		-503.0*	-314.6*
Work Type:	Traffic			
Description:	Centralized computer traffic control system at approximately 200 locations in Boston.			

\* The project was first analyzed in the F.Y. 1983 T.I.P.

DANVERS	DANVERS SQ, DANVERS, 01	018750	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	Town		-0.5 *	-0.4 *
Work Type:	Reconstruction			
Description:	Reconstruction of Danvers Square,			

\* The project was first analyzed in the F.Y. 1984 T.I.P.

NEWTON	WEST NEWTON SQ., 01	139250	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	City		-2.14	-.92
Work Type:	Reconstruction			
Description:	Reconstruct Washington St. in West Newton Business District at Chestnut St.			

REVERE	BROADWAY, REVERE, 01	008390	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	City		-6.9 *	-6.1 *
Work Type:	Traffic			
Description:	Reconstruction of Broadway from Revere Beach Parkway, north to Brown Circle			

\* The project was first included in the F.Y. 1984, February Amendments to the T.I.P.

STONEHAM	STONEHAM, RT-28, 02	131500	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	Town		-7.1 *	-5.0 *
Work Type:	Traffic			
Description:	Main St. (Rt. 28) from William St. to Marble St.			

\* The project was first analyzed in the F.Y. 1982 T.I.P.

WEYMOUTH	WEYMOUTH LANDING, 01	142120	CHANGE IN NMHC (in Kg/day)	
%Design:	75		1985	1987
Design Resp:	Town		-0.6 *	-0.5 *
Work Type:	Reconstruction			
Description:	Reconstruction, minor widening, and signals			
Also Affects:	BRAINTREE			

\* The project was first analyzed in the F.Y. 1984 T.I.P.

#### III.14 UNDETERMINED

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CONSOLIDATED PRIMARY FRAMINGHAM	RT 9, WORCESTER, 01	125450	pg 64
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## IV.6 State Funded Highway Projects

## BIKEWAY

BRAINTREE	BRAINTREE BIKEWAY,01	007450	Cost:	155
%Design:	0	Work Type:	Construction	
Design Resp:	State			
Description:	Class I bikepath circling Pond Meadow Lake, Braintree to Weymouth			
Also Affects:	WEYMOUTH			

WELLESLEY	MORSES PD BIKEWY, WELLSL	139920	Cost:	25
%Design:	80	Work Type:	No entry	
Design Resp:	State			
Description:	Construction of 6 mile bikeway			

## NON-FEDERAL AID

ACTON	RT 2,ACTON,03	096000	Cost:	75
%Design:	75	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Bridge A-2-35 Arlington St. over Rt. 2, concrete repairs			

ACTON	RT 2A,ACTON,01	098150	Cost:	15
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Drainage ditch alteration, Rt. 2A near Azalea Court			

ACTON	RT 27,ACTON,01	104700	Cost:	125
%Design:	60	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Bridge A-2-37 on Main St. (Rt. 27) over Rt. 2, concrete repairs			

ARLINGTON	IMPROV. MAINT. SITE	156020	Cost:	6
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Storm windows			

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ASHLAND	RT 112, BUCKLAND, 04	081102	Cost: 500
%Design: 0	Work Type: Resurfacing		
Design Resp: State			
Description: Resurfacing Rt. 112 from bridge A-13-1 over Clesson Brook north to B-28-6 over Clesson Brook			
Also Affects: BUCKLAND			
BEDFORD	ACCESS RD, MIDLSX COMM CO	000310	Cost: 0
%Design: 0	Work Type: No entry		
Design Resp: State			
Description: Study access road from Rt. 3 to Middlesex Community College			
BELMONT	BRIDGE PAINTING, BELMONT	007779	Cost: 127
%Design: 0	Work Type: Maintenance		
Design Resp: State			
Description: Clean and paint bridges B-7-4 (Trapelo Rd. over RR) and B-7-6 (Lexington St. over RR)			
BOLTON	RT-I-495, BOLTON, 03	065603	Cost: 1615
%Design: 0	Work Type: Resurfacing		
Design Resp: State			
Description:			
Also Affects: BOXBOROUGH HARVARD			
BOSTON	CHARLESTOWN BRIDGE, BOST.	013515	Cost: 173
%Design: 0	Work Type: Bridge reconstruction		
Design Resp: State			
Description: Repairs to B-16-16 over Charles River, North Washington to Charlestown			
BOSTON	DIST. 8	155016	Cost: 15
%Design: 0	Work Type: Maintenance		
Design Resp: State			
Description: Dewey Square tunnel, transformer and general repair			
BOSTON	RESERVOIR RD, BOSTON, 01	060100	Cost: 200
%Design: 50	Work Type: Bridge reconstruction		
Design Resp: State			
Description: Bridge B-16-64 over MBTA Riverside Line, deck replacement			
BOSTON	RT 1A, BOSTON, 02	077165	Cost: 450
%Design: 0	Work Type: Resurfacing		
Design Resp: State			
Description: Resurface Rt. 1A, Pope St., East Boston to Winthrop Ave. in Revere			
Also Affects: REVERE			



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BOSTON	RT 1A,BOSTON,01	077160	Cost:	400
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Rt. 1A, Addison St. to Mills Ave., Revere, Rt. 107 (Ward St., Revere to Pines Bridge, Saugus)			
Also Affects:	SAUGUS REVERE			

BOSTON	SOUTHAMPTON ST,BOSTON,03	130502	Cost:	110
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Service Rd., Southampton St. to Boston St. at Howard Johnsons			

BRAINTREE	DIST-6	155058	Cost:	0
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Four salt sheds, Dist. 6, Avon, Braintree, North Attleboro, New Bedford			
Also Affects:	AVON NORTH ATTLEBOROUGH NEW BEDFORD			

BRAINTREE	RT 128,BRAINTREE,03	086901	Cost:	200
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface old 128, Monatiquot River to Weymouth town line			

CANTON	SPAULDING ST,CANTON,01	130555	Cost:	75
%Design:	0	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Removal of bridge C-2-6 over Penn Central RR			

CHELSEA	MILL CREEK,CHELSEA,01	046720	Cost:	3300
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Drainage improvement, Mill Creek area, Chelsea/Revere			
Also Affects:	REVERE			

CONCORD	IMPROV. MAINT. SITE	156014	Cost:	27
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Paving and planting			

CONCORD	RT 62,CONCORD,01	118500	Cost:	232
%Design:	25	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Bridge C-19-4 over Sudbury River			

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State Funded Highway Projects

DANVERS	WATER ST, DANVERS,01	139450	Cost:	83
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%Design: 0 Work Type: Traffic  
Design Resp: State  
Description: Reconstruct intersection of Water St. and South Liberty St.

DEDHAM	RT 1A, DEDHAM,02	077300	Cost:	450
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%Design: 100 Work Type: Bridge reconstruction  
Design Resp: State  
Description: Bridges D-5-44 and D-5-45, Rt. 1A (Washington St.) over Rt. 128 (Decks)

DEDHAM	RT 1A, DEDHAM,03	077310	Cost:	300
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%Design: 0 Work Type: Resurfacing  
Design Resp: State  
Description: Resurfacing Rt. 1A (Sta. 0+0 to 43), Court St., (Sta. 42 to 55)

DEDHAM	RT 128, DEDHAM,02	087110	Cost:	250
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%Design: 0 Work Type: Bridge reconstruction  
Design Resp: State  
Description: Bridge decks D-5-40 and D-5-41 on Rt. 128 over RT. 135

DEDHAM	RT-128, DEDHAM,05	087131	Cost:	250
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%Design: 0 Work Type: Bridge reconstruction  
Design Resp: State  
Description: Bridge deck D-5-39, Rt. 128/I-95 SB over Charles River  
Also Affects: NEEDHAM

DUXBURY	RT 3A, DUXBURY,01	109900	Cost:	600
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%Design: 0 Work Type: Other  
Design Resp: State  
Description: Drainage, Sta. 104 south to Sta. 161

FRAMINGHAM	FOUNTAIN ST, FRAMINGHAM,01	026700	Cost:	500
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%Design: 25 Work Type: Bridge reconstruction  
Design Resp: Town  
Description: BRIDGE F-7-14, FOUNTAIN ST. OVER RESERVOIR #2 and Bracket Reservoir

FRAMINGHAM	FRAMINGHAM PKG FACIL,02	027001	Cost:	36
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%Design: 0 Work Type: Other  
Design Resp: State  
Description: Leasing of Park and Ride lot at Shoppers World

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FRANKLIN	RT I495,FRANKLIN,04	066511	Cost:	1700
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurfacing, Rt. I-495, Franklin, Sta. 113+71 (end concrete) to Sta. 201+00			
Also Affects:	BELLINGHAM MEDWAY			
HAMILTON	RT 1A,HAMILTON,01	077312	Cost:	1000
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Rt. 1A from Wenham line north to Ipswich town line			
HINGHAM	GEO WASH BLVD,HINGHAM,01	027900	Cost:	250
%Design:	25	Work Type:	Signals	
Design Resp:	State			
Description:	George Washington Blvd. at Rockland St. (traffic signal revision)			
HINGHAM	HEWITT'S COVE,HINGHAM	032051	Cost:	0
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Reconstruction of commuter boat piers			
HINGHAM	RT 3A,HINGHAM,02	110010	Cost:	300
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Rt. 3A, various sections from Weymouth town line to Hingham Rotary Circle			
HINGHAM	RT-3A,HINGHAM,04	110061	Cost:	100
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Remove bridge H-15-5 over Penn Central RR on Rt.-3A between Summer St. and Rockwood			
IPSWICH	GOULD'S CREEK BR,01	028650	Cost:	250
%Design:	0	Work Type:	Reconstruction	
Design Resp:	City			
Description:	Gould's Creek Bridge I-1-3 (Ipswich) on 'Labor-In-Vain' Rd.			
LEXINGTON	IMPROV. MAINT. SITES	156015	Cost:	50
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Heating system			



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LEXINGTON	IMPROVE MAINT. SITE	156013	Cost:	60
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Storage building			
LITTLETON	LITTLETON COMMON AREA,01	039320	Cost:	427
%Design:	75	Work Type:	Reconstruction	
Design Resp:	Town			
Description:	Reconstruct Rt. 110 (King St.) and Rt. 119 (Great Rd.) in Littleton Common area			
MARLBOROUGH	MARLBORO PKNG GAR,01	043505	Cost:	1000
%Design:	0	Work Type:	Construction	
Design Resp:	City			
Description:	Replacement parking for central business district (234 spaces)			
MEDFORD	RT 16,MEDFORD,04	094750	Cost:	170
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Rt. 16, Mystic Valley Parkway connector and other connectors to I-93			
MIDDLETON	RT 114,MIDDLETON,01	081780	Cost:	125
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Reconstruct Rt. 114 from Sta. 21+75 to Sta. 25+00			
MILFORD	RT-109,MILFORD,03	079802	Cost:	400
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Remove bridge M-21-10 and reconstruct from Birch St. west 2100 ft.			
MILTON	RT I93,MILTON,01	071710	Cost:	100
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurfacing and related work on bridge approaches over, and roadways under, Southeast expressway (I-93)			
Also Affects:	QUINCY			
MILTON	RT 37,MILTON,01	112120	Cost:	180
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Rt. 37 (Granite Ave.) Squantum St. to Granite Ave. drawbridge			



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NEEDHAM	CHESTNUT ST, NEEDHAM, 01	014205	Cost:	30
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Cooperative sidewalks on Chestnut St.			
NORWOOD	PLEASANT ST, NORWOOD, 01	056880	Cost:	65
%Design:	0	Work Type:	No entry	
Design Resp:	Town			
Description:	Reconstruct intersection of Pleasant and Dean Sts.			
NORWOOD	RT 1A, NORWOOD, 03	077560	Cost:	200
%Design:	10	Work Type:	Reconstruction	
Design Resp:	State			
Description:	Reconstruction of Walpole St. (Rt. 1A) for discontinuance by state			
QUINCY	RT 28, QUINCY, 02	107212	Cost:	0
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Rt. 28, Reedsdale Rd. (Milton) to end of District, Sta. 12+50 (Quincy)			
Also Affects:	MILTON			
QUINCY	RT-53, QUINCY, 01	114902	Cost:	250
%Design:	100	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Rt. 53 and Quincy Ave. from Braintree town line to Scammel St.			
RANDOLPH	RT 28, RANDOLPH, 02	107303	Cost:	30
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Cooperative sidewalk			
REVERE	RT 1, REVERE, 06	076505	Cost:	300
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Drainage improvements along Rt. 1 and Northern Expressway to toe of slope, both roadways			
REVERE	RT 1A, REVERE, 06	077865	Cost:	330
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Bituminous concrete excavation by cold planer, resurfacing, etc., Rt. 1A including Cutler rotary to Oak			

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REVERE	RT 1A, REVERE, 08	077875	Cost:	260
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Rt. 1-A, Beach St. rotary to Butler rotary			
REVERE	STA SIG UPD, DIST. 8, 02	131382	Cost:	105
%Design:	75	Work Type:	Signals	
Design Resp:	State			
Description:	Traffic signal reconstruction of Rt. 1A at Revere St. and Oak Island St. (Revere) Rt. 107 at Ballard St., Saugus			
Also Affects:	SAUGUS			
SALEM	HIGHLAND AVE, SALEM, 01	079503	Cost:	250
%Design:	0	Work Type:	Traffic	
Design Resp:	State			
Description:	Reconstruction, signalization, left turns, (on Highland Ave.)			
SAUGUS	RT 99, SAUGUS, 01	125850	Cost:	320
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Rt. 99, Rt. 1, DeFranzo rotary, Saugus to end of District, Sta. 1+40, Malden			
Also Affects:	MALDEN			
SCITUATE	STOCKBRIDGE RD, SCITUATE	131490	Cost:	200
%Design:	0	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Bridge removal of S-7-5 over Penn Central RR ROW			
SOUTHBOROUGH	RT 9, SOUTHBORO, 01	125170	Cost:	30
%Design:	50	Work Type:	Traffic	
Design Resp:	State			
Description:	Signalization of intersection of Rt. 9 and White Bagley / Breakneck Rds.			
STOUGHTON	RT 138, STOUGHTON, 02	091005	Cost:	600
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Rt. 138, Lincoln St. to Canton town line			
STOUGHTON	RT-139, STOUGHTON, 01	091560	Cost:	35
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Construct Park and Ride lot at intersection of Pleasant and Turnpike Sts.			

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WATERTOWN	PATTEN ST.,WATERTOWN,01	055830	Cost:	150
%Design:	0	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Patten St. bridge, W-10-8, removal			
WELLESLEY	IMPROV. TO MAINT. SITE	156036	Cost:	100
%Design:	0	Work Type:	Maintenance	
Design Resp:	State			
Description:	Fencing, landscaping, drainage (Maintenance Depot)			
WESTWOOD	RT 128,WESTWOOD,02	088960	Cost:	250
%Design:	0	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Bridge W-31-5, Rt. 128 over railroad NB			
WESTWOOD	RT 128,WESTWOOD,03	088961	Cost:	250
%Design:	0	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Bridge W-31-13, Rt. 128 over RR (deck replacement)			
WEYMOUTH	RT 3A,WEYMOUTH,01	110710	Cost:	500
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Resurface Rt. 3A, Fore River Bridge to Hingham town line			
WRENTHAM	RT 1,WRENTHAM,02	076708	Cost:	6
%Design:	0	Work Type:	Reconstruction	
Design Resp:	State			
Description:	Installation of flashing beacon light at Rt. 1 and Thurston St.			
WRENTHAM	RT 140,WRENTHAM,02	093001	Cost:	0
%Design:	0	Work Type:	No entry	
Design Resp:	State			
Description:	Removal of bridge W-46-5 (Rt. 140) over RR ROW			
WRENTHAM	WINTER ST,WRENTHAM,01	143310	Cost:	200
%Design:	25	Work Type:	Bridge reconstruction	
Design Resp:	State			
Description:	Removal of bridge W-46-3, Winter St. over CONRAIL			

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STATE AID

BOSTON	DUDLEY ST,BOSTON,01	021310	Cost:	500
%Design:	0	Work Type:	Reconstruction	
Design Resp:	State			
Description:	Reconstruct Dudley St. from Blue Hill Ave. to Warren St. (state aid)			

HOLLISTON	NORFOLK ST,HOLLISTON,01	051703	Cost:	0
%Design:	0	Work Type:	Reconstruction	
Design Resp:	State			
Description:	Reconstruction of Norfolk St.			

MALDEN	WASHINGTON ST,MALDEN,01	139000	Cost:	140
%Design:	0	Work Type:	Resurfacing	
Design Resp:	State			
Description:	Washington St. from Clifton St., and Dutton St. to Melrose town line (state aid)			

SHERBORN	COOLIDGE ST,SHERBORN,01	017110	Cost:	150
%Design:	50	Work Type:	Reconstruction	
Design Resp:	State			
Description:	Coolidge St., Kendall Ave. and Speen St. (intersection and approaches)			

WATERTOWN	HIGHLAND AV,WATERTOWN,01	032660	Cost:	250
%Design:	0	Work Type:	Reconstruction	
Design Resp:	State			
Description:	Reconstruction from Waltham city line to Gilbert St.			

WOBURN	WYMAN ST.WOBURN,01	144000	Cost:	500
%Design:	90	Work Type:	Reconstruction	
Design Resp:	State			
Description:	Burlington town line to Lowell St. (near Rt. 38)			
	(state aid)			

LOCAL FUNDS

NEWTON	WALNUT ST,NEWTON,01	137320	Cost:	2800
%Design:	25	Work Type:	Reconstruction	
Design Resp:	City			
Description:	Safety improvements on Walnut St. from Washington St. to Austin St. (over Turnpike)			



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NEWTON	WASHINGTON ST, NEWTON, 01	139200	Cost:	225
%Design: 50	Work Type: Traffic			
Design Resp: City				
Description: Washington St. at Adams St. / Jackson Rd. / Lewis Terrace intersection (channelization and signals)				











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